MONOGRAPHS ON FUNDAMENTAL EDUCATION

THE TEACHING OF READING AND WRITING

WILLIAM S. GRAY

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UNESCO

MONOGRAPHS ON FUNDAMENTAL EDUCATION — X

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THE TEACHING OF READING AND WRITING

An International Survey

by

WILLIAM S. GRAY

UNESCO

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PREFACE

The importance of this publication in the execution of Unesco's programme will be apparent to anyone who knows the concern of the Organization with increasing literacy. There is no need to argue here the primary role which literacy can play in social and material betterment. The fact is almost universally accepted today, and the multiplicity of national, regional and international efforts being directed towards making children and adults literate is a rich testimony to the awakening of mankind's conscience in this matter, as well as to the acceptance of the role basic, social or fundamental education have to play in the pursuit of a better world.

But the acceptance of a principle for action and its operation in practice are two different things. Article 26(1) of the Universal Declaration of Human Rights states, 'Everyone has the right to education'. But what kind of education? How much? Taught by what methods? These are controversial questions. It is generally accepted that everyone should be taught to read and write, but for at least eighty years there have been major differences of opinion both as to the aims of a reading or writing programme and the methods to be employed—whether learners be children or adults.

The present book does not attempt to give a final answer to these questions. As the introduction makes clear, it is an attempt to review prevailing practices, to evaluate, on the evidence available, the efficacy of methods being employed and to sum up, in a form convenient to educators and administrators, the results of research and experience which have made significant contributions to this subject.

The book is a result of four years' effort. As will be seen from the Introduction, it has been an effort in which not only the author and the Unesco Secretariat have played a part, but many national agencies, and individuals too, offering suggestions, comments and criticisms from their accumulated experience, and thus helping to carry the work beyond the Preliminary Survey *issued by Unesco in 1953. To list all those who have co-operated would take several pages. We thank them collectively and acknowledge that without their co-operation the present book would have lacked whatever validity it may have.*

But neither Unesco nor the author claim absolute validity for the suggestions and recommendations that follow. Many gaps in the present state of knowledge on the topic remain to be filled, and it is one of their hopes that this work will stimulate and guide further research to remove many imperfections.

The book is issued in English, French and Spanish editions. The reader who compares these will find significant differences, for the English original has not simply been translated into the other languages; an attempt has been made, through enlisting the aid of recognized authorities—Jean Simon for the French, and Rodriguez Bou for the Spanish—to adapt the original to fit the terms of reference of the educators of those language areas. In the same way, Unesco hopes that, apart from its immediate interest to educators and administrators in their thinking and practice, the present book will form the basis for the preparation of teachers' manuals in many languages. Any inquiries regarding such projects should be addressed to the Unesco Secretariat.

As the Introduction points out, this study follows earlier studies as to the language in which teaching should be given—the vernacular or a second language. The present work may be regarded as the logical step forward after the isolation of these factors. Having then studied the language in which teaching should be given and the methods of teaching, the next step is a study of the production of suitable literature—primers and readers—corresponding to these requirements. A start has already been made on this (see, for example, the recent publication of Unesco Some Methods of Printing and Reproduction: An Outline Guide, *by H. R. Verry), but Unesco is increasing its efforts under the 1955-56 programme.*

Finally, let it be made clear that this book is in no way intended to replace the teacher. In the end, whatever method is adopted, it is the teacher himself, with the support of his community, who will guarantee its success or failure.

Unesco wishes to express its gratitude to the distinguished educator, Dr. William S. Gray of the University of Chicago, author of this book, whose name has been associated with progress in this branch of teaching since 1918. It wishes also to thank the Chairman of the Department of Education, the University of Chicago, for placing the resources of that institution at the disposal of the author for his work; as well as the many anonymous collaborators already mentioned and the authors and publishers listed below for their generosity in giving permission to reproduce the copyrighted material which illustrates this book:

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A full annotated bibliography on the subject of this book is being issued separately by Unesco in its series of Educational Studies and Documents. *Readers interested in procuring this should inquire at the Unesco Sales Agent nearest to them (see list at end of this book) or directly to Unesco, Paris.*

CONTENTS

Introduction		9
Chapter I	The role of reading and writing in fundamental education	16
Chapter II	Influence of type of language on literacy training	31
Chapter III	Nature of the reading process in various languages	43
Chapter IV	Reading attitudes and skills essential to functional literacy	61
Chapter V	Methods of teaching reading	75
Chapter VI	Findings of research that help in the choice of methods	101
Chapter VII	Nature and organization of reading programmes for children	117
Chapter VIII	Teaching adults to read	149
Chapter IX	Basic principles underlying the teaching of handwriting	188
Chapter X	Teaching handwriting to children	209
Chapter XI	Teaching handwriting to adults	228
Chapter XII	Action required to attain the goal	245
Index		275

INTRODUCTION

Universal ability to read and write! It is perhaps strange that so many who today accept this objective without question should forget how recently it received social approval, and forget too the enormous inertia, and indeed active opposition, which the pioneers of the idea had to overcome in the nineteenth and early twentieth centuries, even in so-called advanced countries. Perhaps these pioneers erred in believing that this ability alone would liberate from ignorance, disease and poverty; perhaps, as a consequence, they erred too in concentrating on this ability without relating it to welfare, social progress and democratic growth. Those who are aware of the appalling extent of ignorance, poverty and disease now realize that literacy as a skill is not enough; it must be viewed merely as an essential aid to individual and community welfare and inter-group understanding. How overwhelming are the tasks which educators face in attempting to reduce illiteracy will be shown in later chapters. It is encouraging to note that these educators are growing in number and that through the efforts of individuals, governments and international agencies, the world's conscience has been awakened to the challenges these tasks present.

In the course of the efforts made to reduce illiteracy, it has become clear that the use of traditional teaching methods and standards often fails to attain the broad aims indicated above. Unfortunately, however, few studies have been made to discover the types and levels of efficiency in reading and writing that modern life demands. Recent proposals concerning the most effective methods of teaching these arts differ widely and are based on conflicting assumptions. As a result, leaders and field workers have experienced serious difficulty in their efforts to develop sound literacy programmes and have made repeated and urgent appeals for help. This book will attempt to summarize the knowledge available today for the pursuit of these broad goals, to make certain recommendations and to isolate problems needing further study.

ORIGIN OF THIS STUDY

Throughout its history Unesco has been keenly aware of these problems and needs. Shortly after its creation, delegates and advisers from Member States studied at length various conditions, including illiteracy, that prevailed in many under-developed areas of the world. They concluded that the problems that had to be faced were so serious that Unesco should attack them with all the energy and resources at its command. The term, 'fundamental education' was adopted to describe this broad field of constructive activity. Since 1946 the promotion of

fundamental education has been one of the most important of Unesco's activities.

Further stimulus was given to the intensive study of literacy problems when the General Assembly of the United Nations, on 2 December 1950, passed Resolution 330 (IV) requesting Unesco to communicate to Administering Members detailed proposals for suppressing illiteracy which could be applied with satisfactory results in non-self-governing territories.

Various preliminary studies had already been made to determine the nature of the language problems that would be encountered. As soon as findings[1] were available, the General Conference of Unesco—at the sixth session (1951)—authorized the Director-General to make provision for a study of methods of teaching reading and writing, to continue throughout 1952-54.

As plans for the study developed, it was divided into two parts—a preliminary survey and the preparation of a final report. In the summer of 1952, a survey was begun with the following aims: (a) to discover, analyse and describe the various methods now used in teaching both children and adults to read and write; (b) to secure data concerning the effectiveness of these methods, wherever they were available; (c) to summarize the findings of the survey, to discuss their implications for the improvement of the teaching of reading and writing, particularly at the adult level, and to point out problems needing further study.

In the course of the preliminary survey, much information was obtained which influenced the nature and scope of the final report. It was found, for example, that many of the basic facts and principles could be used as guides everywhere in organizing literacy programmes and in selecting methods of teaching, that cultural and linguistic differences often justified variations in both the content of the programmes and the methods of teaching. Therefore, it did not seem advisable, as had originally been suggested, to prepare the final report in the form of a teachers' manual, to be used throughout the world. It seemed better to focus attention on those facts and principles that had world-wide application, to point out the factors that justified variations in programmes and teaching procedures, and to encourage local communities to use this information in developing programmes adapted to their particular needs.

The survey also showed that many problems relating to methods of teaching reading and writing could not be settled on the basis of objective evidence. Some of the basic issues therefore were controversial in nature. Sound progress depended upon a clear recognition of the various aspects of the problems; familiarity with established facts and principles affecting their solution; open-minded studies of controversial issues; co-operative effort of various groups in solving common problems; and the continual improvement of literacy programmes in the light of experience.

Another finding was the urgent need for informed leadership. At conferences with those most widely informed, it was emphasized repeatedly that the final report should help those responsible for organizing and directing efforts to extend literacy, particularly in the underdeveloped areas of the world. Such help, it was affirmed, included: firstly, a critical survey of facts and principles that might serve

1. Unesco. *The Use of Vernacular Languages in Education.* Interim report submitted by Unesco to the Special Committee on Information transmitted under Article 73e of the Charter. Second Session 1951. 101 p. (A/AC.35/L.62, 17 Sept. 1951.)

—. *The Problem of Vernacular Languages in Education.* Interim report submitted by Unesco to the Special Committee on Information from Non-self-governing Territories. Third Session 1952. 51 p. (A/AC.55/L.103.)

—. *The Use of Vernacular Languages in Education.* Paris, 1953. 154 p. (*Monographs on Fundamental Education,* No. VIII.)

as valid guides in organizing literacy programmes and in selecting methods of teaching; and secondly, a detailed plan for developing programmes adapted to the needs of specific communities, putting them into effect, and promoting the study of unsolved problems.

THE MAIN PURPOSES OF THIS EFFORT

The following purposes were adopted in preparing this volume:

1. To provide actual and potential leaders with as clear an outlook as possible on the problem of world literacy in its varied aspects, with special reference to the most effective methods of teaching reading and writing. This involved:
   (a) marshalling pertinent information concerning the basic facts and principles that have world-wide application, the specific problems that merit further study, and the factors that justify local variations in teaching procedures;
   (b) appraising the findings objectively;
   (c) preparing a synthesis of guiding facts and principles that have universal application.
2. To provide guidance and concrete suggestions that will enable leaders to develop literacy programmes in harmony with these general facts and principles, and adapted to local needs and conditions.
3. To define the nature of the unsolved problems that should be studied in order to promote literacy throughout the world, and to consider means of solving them.

These purposes will be more closely defined in the discussions that follow.

SCOPE OF THE STUDY

The study focuses particular attention upon the problems of the underdeveloped areas of the world, owing to the seriousness of the problems being tackled there and the urgent need for help. The study is, of course, most directly concerned with areas where programmes of fundamental education are already under way or may be started. However, what is said applies with equal force to similar efforts under different names, such as 'basic education', 'community development', 'social education', 'adult education' and 'national literacy campaigns'.

Although literacy programmes usually include many types of learning activity, in this study attention is focused on reading and writing. It was recognized that other types of training relating to immediate and urgent needs are often required; and also that all the language arts contribute to promoting literacy—reading, writing, listening, oral and written expression. Experience[1] and the results of research[2] show clearly that progress in any one of these arts is influenced by, and in turn influences, progress in the others. For these reasons frequent reference is made to correlated activities in the different language arts.

The study is limited to the problems of promoting literacy in the mother tongue,

1. Elliot, A. V. P. and Gurrey, P. 'Part I. The Vernacular', *Language Teaching in African Schools*. London, Longmans, Green & Co., 1949, pp. 3-74.
   Freinet, C. *Méthode naturelle de lecture.* Cannes (Alpes Maritimes, France), Editions de l'Ecole Moderne Française, 1947, 59 p. (*Brochures d'éducation nouvelle populaire*, No. 30, 1947.)
2. Artley, A. Sterl. Chairman, 'Interrelationships among the Various Language Arts', *Research Bulletin of the National Council on Research in English.* National Council of Teachers of English, Chicago, Ill., 1954. p. 42.

for research[1] shows that initial progress in learning to read and write is quickest in the mother tongue. In some areas of the world, learning to read and write the mother tongue is but a step towards the attainment of literacy in a second language, but, important as are the problems of developing ability to read and write a second language, they are not considered in this report, for they merit separate, intensive study. No attempt is made here either to consider the problems of giving a language written form. Because of its technical character, it seemed advisable to leave this problem to specialists.

The study focuses attention on the problem of developing ability to engage in those reading and writing activities normally expected of all literate members of a community. Far greater ability is required of those who are to become community leaders, but the additional training they need is usually provided by high schools and other adult agencies.

Again, the study deals mainly with adults. However, reference is continually made to the problems children encounter in learning to read and write, since most studies have been made at the child level. Special sections on reading and writing programmes for children have also been included, in the belief that the ultimate hope of a literate world lies in the education of its children.

Finally, this study does not suggest new methods of teaching reading and writing that will ensure phenomenal results—if such methods existed, they would be highly desirable—it sets out rather to appraise past and present practices in promoting literacy and to make constructive proposals in the light of the evidence available.

FOR WHOM THE REPORT IS INTENDED

This report is intended specifically for those responsible for organizing and directing literacy programmes with special reference to areas where programmes of fundamental education are operating. Such leaders include:

Directors, supervisors, curriculum specialists and committees charged with stimulating and advising teachers in service and developing or selecting materials needed in promoting literacy;

Staff members of teacher-training institutions responsible for the initial preparation of teachers and for their continued in-service training;

Authors and publishers of professional books or textbooks on reading and writing designed to develop among children or adults the attitudes and skills required for functional literacy;

Very capable teachers who hold positions of leadership and who should assume the responsibility of embodying the findings and recommendations of this report in effective programmes adapted to the needs of their communities.

THE MAIN PROBLEMS STUDIED

The first problems to be broached in this study were those arising from the threefold purpose of the preliminary survey. As the work progressed, other important

1. Grieve, D. W. and Taylor, A. 'Media of Instruction: A Preliminary Study of the Relative Merits of English and an African Vernacular as Teaching Media', *Gold Coast Education*, Vol. I, No. 1, 1952, pp. 36-52.
   Isidro, Antonio. *The Use of the Vernacular in and out of Schools*. Quezon City, 1951, pp. 57-60.
   Platten, O. T. *The Use of the Vernacular in Teaching in the South Pacific*. Noumea, New Caledonia, South Pacific Commission, 1953. 42 p. (*South Pacific Commission Technical Paper*, No. 47, 1953.)

problems came up, and arrangements were made to study them as soon as the work schedule permitted. When the decision was made to modify the basic purpose of the report so that it would serve more specifically the needs of the leadership group, it became evident that still other problems should be dealt with. The study of some of them was not begun until after the preliminary survey had been published. In the outline that follows, the main issues studied are listed in the order in which they will be discussed in this work. This has the advantage not only of enumerating the various problems, but of giving an idea of the scope of the report and its method of presentation.

1. The role of reading and writing in fundamental education, the level of literacy which is essential, and the size of the task of extending functional literacy throughout the world. A study of these issues required careful consideration of the sociological causes of the need for literacy and some methods of meeting it.
2. The families of languages, with reference to the kinds of characters used in writing them, and the influence of linguistic differences on teaching methods.
3. The extent to which the basic processes involved in reading are the same in the various languages. This problem was studied to determine whether a common conceptual framework could be established within which the detailed problems of teaching reading could be discussed.
4. The necessary attitudes and skills for efficient reading and the personal factors that influence progress in acquiring them. These questions assumed great importance when it was realized that the basic processes were the same in different languages.
5. The methods used to teach reading, the assumptions underlying them, the changes that have occurred in them, and their advantages and limitations as reported in the literature. While these problems were being studied, a special effort was made to discern current trends.
6. The relative effectiveness of different methods of teaching reading, and the principles that influence the choice of teaching methods. These problems were studied in order to establish a sound basis for selecting or developing valid methods of furthering world literacy.
7. The nature and organization of systematic reading programmes for primary-school children, in accordance with the findings of experience and objective evidence. Experience has shown that to develop good readers, various types of training must be provided throughout the primary school in a carefully integrated sequential programme of learning activities.
8. The nature of reading programmes for adults designed to prepare them to engage effectively in the various reading activities in which all literate members of a community are normally expected to engage.
9. Facts and principles relating to the nature of handwriting, how it is learnt, and the relative merits of different methods of teaching, as indicated by experience and the results of research.
10. The nature and organization of handwriting programmes for children, in accordance with these findings, covering the primary-school period.
11. The nature of handwriting programmes designed to prepare adults as quickly and effectively as possible to use writing for personal and social purposes.
12. How to embody the results of the foregoing studies in literacy programmes adapted to the needs of specific communities. Because of numerous and urgent appeals for help, attention is focused on programmes for adults. Regional or local effort is important in this connexion, since each community poses specific problems.

SOURCES OF INFORMATION AND PROCEDURES

Before this study was begun, the Education Clearing House at Unesco had collected much valuable material from all parts of the world; reports of literacy conferences, descriptions of literacy programmes, copies of primers and other instructional materials used, and analyses of the results of particular efforts to teach adults to read and write. The Library of the International Bureau of Education at Geneva also collected sets of readers for children from at least fifty countries. This material was used during the initial stages of the survey. The findings were supplemented later by analyses of material on file in the Community Development Clearing House of the University of London Institute of Education and the offices of the Christian Education Council in London.

Although hundreds of publications were available, questionnaires were sent to leaders and field workers requesting many types of additional information as well as reports and bulletins of various kinds. Letters were also sent to publishers and authors of primers, readers, and professional books relating to literacy problems, outlining the kinds of information needed and requesting copies of any relevant material they might have. The author conferred with many people from various parts of the world who visited Unesco House during the winter of 1952-53, and also visited selected centres in France, England, Scotland, Switzerland, Belgium, Brazil, Puerto Rico and Cuba to obtain first-hand information and published reports.

During the autumn and winter of 1952-53 all this information and material was analysed. The analyses of instructional materials were made with the assistance of specialists from 12 different language areas, who followed the set of directions prepared for the purpose. The author also reviewed the results of scientific studies made in various countries on the nature of the reading process, factors that effect progress in learning to read, and the relative merits of various teaching methods. A preliminary report[1] was then prepared, and, during the summer of 1953, sent to National Commissions of Unesco in Member States and to other recognized leaders in literacy training. It was accompanied by an urgent request for criticisms and suggestions.

Meanwhile, a study was made of the kinds of language used today, the kinds of characters employed in writing them, and the influence of linguistic differences on teaching methods. A study was also made, through the use of an eye-movement camera, of the processes involved in reading in 14 different languages.

The final report was prepared during the summer and autumn of 1954. The author takes this opportunity to thank all those agencies and individuals who contributed in some way to this study. Without their help the report could not have been written.

LIMITATIONS OF THE REPORT

Many of the constructive suggestions received from leaders and field workers called for types of study which could not be made, owing to lack of time and information. It was suggested, for example, that the frequency with which different teaching methods are used be determined and that the data be subdivided in terms of different languages, cultures, economic status, age and intelligence. Illuminating as such

1. Gray, William S. *Preliminary Survey on Methods of Teaching Readings and Writing*. Parts I and II. Paris, Unesco, 1953. (*Educational Studies and Documents*, No. V.)

an analysis might have been, it was too comprehensive and complex to be made for this study.

Again, the proposal was made that the report should discuss essential steps in teaching reading in terms of different philosophies, ideologies and systems of logic. In the final analysis, the methods of developing efficient readers are influenced by the values sought through reading and the nature of the thinking used in achieving them, but, because of its complexity, this problem could not be studied intensively at the time. Attention was focused on teaching methods which have proved most effective in helping individuals learn to read and write well enough to meet the practical need of everyday life. Constant reference is made, however, to the need of adjusting teaching procedures to the purposes to be achieved.

Even within the restricted area studied, the report has many limitations. Information had not been received concerning current practices in reducing illiteracy in many parts of the world before the report was completed. Again, scientific studies relating to reading and writing have been carried out in only a limited number of countries. Although most of the main conclusions reached are supported by evidence from two or more countries, it cannot be affirmed that they are equally valid for all. However, the increasing number of studies which have been made recently in different parts of the world is very encouraging.

Most of the intensive studies have been made with children as subjects. It is not advisable, of course, to base recommendations concerning the teaching of adults entirely on such findings. However, most of the conclusions reached are supported by what evidence is available on adults. Wherever differences exist between the findings for children and those for adults, they are pointed out. A closely related limitation is the lack of objective evidence concerning the differences in the ways children and adults learn. Far more detailed studies are needed in this field to ensure adequate understanding of the ways in which adults can be taught most readily.

Finally, the validity of the conclusions of this study is necessarily limited by the background of the investigator and his capacity to interpret the facts open-mindedly.

CHAPTER I

THE ROLE OF READING AND WRITING IN FUNDAMENTAL EDUCATION

As efforts to reduce illiteracy have expanded, questions have been asked concerning the most effective measures to adopt, particularly the choice of methods in teaching people to read and write. Fortunately, experience and the results of research are a guide. They emphasize the great importance of defining at the outset the main goals to be achieved through literacy and the levels of proficiency required.

Accordingly, this chapter deals in some detail with the purposes of fundamental education, the role of reading and writing in attaining them, the motives that impel adults to learn to read and write, the extent of the training needed, and the size of the task of eliminating illiteracy.

BASIC PURPOSES OF FUNDAMENTAL EDUCATION

The broader purposes of fundamental education, as conceived by Unesco, closely resemble the common goals of all education. They are 'to help men and women to live fuller and happier lives in adjustment with their changing environment, to develop the best elements in their own culture, and to achieve the social and economic progress which will enable them to take their place in the modern world and to live together in peace'.[1]

The specific aims of fundamental education are to help people understand their immediate problems and to provide them with the knowledge and skills to solve them through their own effort. It is an attempt to improve the status and welfare of the present generation 'by giving it the minimum of education needed to improve its way of life, its health, its productivity and its social, economic and political organization'.[2] It is an emergency measure in the sense that it attempts to improve the status and welfare of both children and adults in areas where educational facilities have thus far been inadequate.

The foregoing statements may be supplemented to advantage by the following definition of fundamental education contained in a recent report to the United Nations Economic and Social Council:[3]

'Fundamental education is that kind of minimum and general education which aims to help children and adults who do not have the advantages of formal education to understand the problems of their immediate environment and their rights

1. Unesco. *Fundamental Education: Description and Programme.* Paris, 1949, p. 9. (*Monographs on Fundamental Education,* I.)
2. Unesco. *Learn and Live: A Way out of Ignorance for 1,200,000,000 People.* Paris, 1951, p. 7.
3. UN Economic and Social Council. Administrative Committee on Co-ordination. *Fifteenth Report . . . to the Economic and Social Council.* New York, 1953, 26 p. (E/2512.)

and duties as citizens and individuals, and to participate more effectively in the economic and social progress of their community.

'It is fundamental in the sense that it gives the minimum knowledge and skills which are an essential condition for attaining an adequate standard of living. It is a prerequisite to the full effectiveness of work in health, agriculture and similar skilled services. It is general in the sense that this knowledge and these skills are not imparted for their own sake only. It uses active methods, it focuses interests on practical problems in the environment, and in this way it seeks to develop both individual and social life.

'It is concerned with children for whom there is no adequate system of primary schooling and with adults deprived of educational opportunity; it utilizes all suitable media for their development through individual effort and through community life.'

As here conceived, fundamental education is often the first stage in organized efforts to promote personal development and community progress. From the outset, it stimulates awareness of individual and group possibilities. Such an awakening may occur in a single activity, such as a health demonstration project. In the course of time, however, it spreads to other activities. In so far as it includes the knowledge and skills usually acquired in school, fundamental education tries to develop them according to the needs and interests of the people concerned. Thus people are taught to read and write only when they recognize that these skills are necessary to the fuller attainment of their purposes.

Since programmes organized in specific communities are adapted to their particular needs, they differ widely. This is strikingly illustrated in descriptions of the constructive activities carried on by Unesco in Haiti,[1] in such communities as Patzcuaro[2] and Tzentzénhuaro[3] in Mexico and elsewhere throughout the world.[4]

In the long run however, it is generally believed that all programmes should seek to promote: skills of thinking and communicating (reading and writing, speaking, listening, and calculation); vocational skills (such as agriculture and husbandry, building, weaving and other useful crafts, and simple technical and commercial skills necessary for economic progress); domestic skills (such as the preparation of food and the care of children and of the sick); skills used in self-expression in the arts and crafts; education for health, through personal and community hygiene; knowledge and understanding of the physical environment and of natural processes (for example, simple and practical science); knowledge and understanding of the human environment (economic and social organization, law and government); knowledge of other parts of the world and the people who live there; the development of personal qualities, such as judgment and initiative, freedom from fear and superstition, sympathy and understanding for different points of view; spiritual and moral development; belief in ethical ideals and the habit of acting upon them; with the duty to examine traditional standards of behaviour and to modify them to suit new conditions.[5]

These aims are very broad and hold potentialities for individual development and group progress. Although in its initial stages each fundamental education

1. Unesco. *The Haiti Pilot Project: Phase One 1947-1949*. Paris, 1951, 83 p. (*Monographs on Fundamental Education*, IV.)
2. Unesco. *Learn and Live*, op. cit.
3. Unesco. *New Horizons at Tzentzénhuaro*. Paris, 1953, 33 p.
4. Essert, Paul L., Lourenco-Filho, M. B. and Cass, Angelica W. 'Developments in Fundamental Education for Adults', *Review of Educational Research*, Vol. XXIII, No. 3 (Adult Education), Chap. III. American Educational Research Association, Washington, D.C., 1953.
5. Unesco. *Fundamental Education*, op. cit., p. 11.

programme should attend to the most pressing needs, there is scarcely any limit to its ultimate scope. Once a community has discovered its own needs and the possibility of meeting them, the foundation has been laid for continuous development.

NEED FOR LITERACY IN ATTAINING THE GOALS SOUGHT

Different views have been expressed concerning the need for literacy in achieving the purposes of fundamental education. At one extreme is the traditional attitude that ability to read and write is of first importance in helping people to face their problems intelligently, to improve their health and their economic and social status, and to enrich their lives. In accordance with this view, most energy has been expended in organizing literacy programmes and in teaching young people and adults to read and write. Unfortunately, little or no effort has been made in such cases to relate the skills acquired to the practical uses they should serve. Results have been measured primarily in terms of the number of literacy certificates granted.

At the opposite extreme, some believe that efforts to teach reading and writing have little, if any place in a programme of fundamental education, that the problem should be tackled more directly. They argue that literacy campaigns have usually proved ineffective in helping individuals and groups meet many of their immediate problems—such problems are so important that they require all the time and energy available—and that other aids to learning, such as demonstrations, posters, films, radio broadcasts and the like, make a greater appeal than reading and impart the needed information and guidance more effectively.

A third point of view assumes that the spread of literacy and the effort to solve personal and group problems are so closely interrelated that each can be achieved best through a co-ordinated approach. Many of the motives for learning to read and write grow out of and are directly related to other efforts at improvement. Under these conditions, it is affirmed,[1] individuals use the newly acquired skills in achieving something they really want. They thus obtain satisfactions through early reading and writing activities which pave the way for their continued use in later efforts to improve personal status and help solve group problems.

An appraisal of all the evidence leads to two conclusions. The first is that every means should be used to help individuals and groups understand and solve their problems. The rapid development during recent years of new aids to learning and new means of communication has been very fortunate. Experience has shown that the impact of an idea is usually far greater when it is presented through several media, e.g. discussion, demonstration, posters, films, radio, newspapers, bulletins books. When, however, many aids to learning are available, questions often arise as to the most effective plan to adopt. For example, what is the most effective aid to use first? In what order should others be used? To what extent do the answers to these questions vary with different problems, different degrees of maturity and ability to read?

The second conclusion is that sooner or later reading is essential to the promotion of human welfare. This view is supported by the results of detailed studies of the relative merits of reading matter, radio, television and the cinema. As pointed out by Dale,[2] there is no 'substitute for reading' in achieving many types of personal

1. Rex, Frederick J. 'Literacy—Why and How: Looking Forward to the Rio Seminar', *Fundamental and Adult Education,* Vol. I, No. 3, 1949, pp. 18-19. Paris, Unesco.
2. Dale, Edgar. 'Is there a Substitute for Reading?', Newsletter, Vol. X, April 1945. Bureau of Educational Research, Ohio State University.

development and social progress. Printed matter now contains a greater range of information, deals with more problems, and is a source of more pleasure and satisfaction than any other available media. It can also be read and reread at the reader's convenience and at his own rate. He is thus able to reflect at will on the issues discussed and the suggested courses of action, and to reach more considered conclusions.

VALUES INHERENT IN LITERACY

The values inherent in literacy have been discussed at great length in recent publications and at many conferences. As a rule, values emphasized have been those of greatest importance to the specific area or groups[1] concerned. Some very illuminating efforts have been made to prepare more or less comprehensive lists of values,[2] but they are numerous and varied and it would be impossible to present here a complete list together with the evidence or arguments that justify them. An attempt will be made rather to indicate some of the important ways in which a literate person has an advantage over one who is not: in meeting many of the practical needs of daily life, such as being warned of danger, finding one's way about, keeping posted on current happenings, keeping in touch with one's family; in improving standards of living by obtaining valuable printed information relating to health and sanitation, the production, selection and preparation of food, child care and home management; in increasing economic status through learning of available jobs, filling in forms and making application in writing, being able to follow written or printed directions while at work, engaging in vocations which require knowledge of reading and writing, learning how to spend and take care of wages; in gaining social prestige and taking part in many individual and group activities that involve reading and writing; in learning about community activities and trends and the forces that make for or retard progress, and studying social problems; in meeting civic obligations through knowing about and observing regulations, participating in group discussions and in efforts to secure civic improvement, and voting without personal help in the light of all the information available; in understanding world affairs through learning about things and events both near and far, other people and their ways, and the natural and social forces that influence life; in having access to and enjoying his literary heritage; in satisfying religious aspirations through reading sacred literature, participating in various religious activities.

Clearly those who provide literacy training have almost unlimited opportunity to increase the efficiency and enrich the experience of their students. The ends sought cannot be attained merely by developing the basic skills of reading and writing. As young people and adults grow in ability to read and write, they must acquire also an understanding of their world. Only as such understanding develops will they be able to acquire keener insight, more rational attitudes, and improved behaviour patterns.

THE LEVEL OF LITERACY NEEDED

Since the values of reading and writing are many we are faced with the question: what level of literacy is needed to attain them? We must remember that there are

1. Unesco. Seminar on Rural Adult Education. *Report of Work done by Group I on Literacy and Adult Education.* Mysore, 1949, p. 3. (Unesco/Mysore/71.)
2. Clark, Ann Nolan, 'Preparation of Reading Materials: Subject V—Objectives and Techniques', *Working Papers.* Inter-American Seminar on Literacy and Adult Education, Petropolis, Rio de Janeiro, 1949, pp. 3-5. (Sem/Rio/10/a.3/1.)

many levels of literacy, varying all the way from mere ability to read a simple statement and to write one's name to a high level of maturity in reading interests and habits. In the past, the amount of training given has varied with the standards of literacy adopted in specific areas. Those used most widely are commonly referred to as 'minimum standards of literacy' and 'functional literacy'. The nature of each, and its advantages and limitations, will now be examined.

MINIMUM STANDARDS OF LITERACY

In early efforts to reduce illiteracy it seemed advisable to adopt minimum standards. With the limited facilities at hand it was necessary to concentrate on the development of only the most rudimentary skills required for reading and writing. The training given consisted, as a rule, of a series of about twenty-four lessons and was based on the materials in one primer, or possibly two or three. In teaching, attention was focused on word recognition and the basic elements in writing. The main attainments sought were measured in terms of ability to read an easy passage and to write one's name or a simple message.

At least three advantages attached to this policy: it gratified the desire of thousands of adults to be able to read very simple material and thus to meet certain practical demands; it gave those who were successful the prestige that has always attached to literacy; and it enabled many adults to enjoy certain privileges, such as the rights of citizenship.

For census purposes there is still need for simple, easily administered standards of literacy. Unfortunately, however, no universally accepted standards have ever been adopted. Standards have varied so much[1] and have been attained under such varying conditions that the data are hardly comparable. Several agencies[2] are now trying to determine adequate standards for census purposes.

Recent reports show that the restricted aims and practices described above persist in many areas. There are two practical reasons for these relatively low standards. They are often adopted because they encourage enrolment in literacy classes. If securing a certificate means long, arduous effort, fewer adults will enrol, and many who do enrol will drop out of classes before the required standards have been reached. It is very important, of course, to set up goals which can be achieved readily. The error does not lie in adopting easily attainable first goals, but in failing to set up subsequent goals that lead to a sufficiently high standard.

A second cause of the low standards is the conviction of some administrative officers that extended programmes of training are neither feasible nor necessary. They maintain that, because of lack of funds and trained teachers, instruction should be kept to a minimum and that as soon as a reader is able to decipher the words of a passage, he can grasp its meaning. Hence, all the training needed in reading is that required to arrive at the pronunciation of words through phonetic analysis, or otherwise. They affirm that anyone who attained minimum standards of literacy and had real motives for learning to read and write, and was mentally alert and capable would be able to make the necessary progress by himself. They also contend that most, if not all, of those unable to make such effort merit no additional help.

The chief weakness in minimum standards of literacy and the fallacy of the

1. Unesco. *Progress of Literacy in Various Countries*. Paris, 1953, pp. 13-17. (*Monographs on Fundamental Education*, VI.)
2. Unesco. *Improving the International Comparability of Statistics on Illiteracy and Education*. New York, United Nations Economic and Social Council, 1954, 11 p. (E/CN.3/188, 1954.)

foregoing argument can be readily pointed out. In the first place, if training is discontinued as soon as such standards have been attained, the trainees are unable to read and write with ease, or for other than the most elementary purposes. Many who receive certificates make little or no subsequent use of their skills. It is not surprising, therefore, that they soon lose whatever ability to read and write they may have acquired. These statements are supported by experts, such as Dr. Frank Laubach, and by the results of numerous literacy campaigns.

In the second place, the need for extended training for most of those who enrol in literacy classes has been emphasized by Kotinsky, as a result of wide experience in the field of adult elementary education. 'For some individuals, few and far between, an educational situation which provides for no more than acquisition o the ability to read and write may open up new vistas and possibilities. Using their newly acquired tool, they proceed on their own to become full persons.... The vast majority, however, do not have the background or capacity to seize upon such a tool and put it to full use, opening the world to themselves with it and making the world, in a sense, their oyster.'[1] The author implies here that adults will not rise to equal levels of competence and understanding, but that each should have the kind and amount of guidance needed to enable him to become a literate, efficient, respected member of his community.

THE CONCEPT OF FUNCTIONAL LITERACY

Numerous efforts have been made to develop higher standards of literacy, mostly based on a concept of functional literacy that has evolved gradually during the last 25 years, which assumes that the training given should be such that the trainees will be able to meet independently the reading and writing demands made upon them. Note, for example, the conclusions reached at a conference of provincial representatives in Northern Nigeria in 1950: 'A useful standard of literacy implies that the pupil can make use of what he has learned without further help from the instructor.'[2] The test adopted for measuring satisfactory progress took the following form:

'Reading. Reading with understanding a passage in the vernacular. The passage set should be self-contained, so that it conveys a complete meaning. The subject matter of the passage should be within the understanding and experience of the candidate. The language used should be in the idiom familiar to the candidate....

'Writing. Writing a letter to a specific person containing specific information. The letter must be framed in the customary form, contain the sender's address, and his personal signature. An envelope should be prepared according to the accepted method and inscribed in such a way that the addressee is sure to receive it.'[3]

In promoting functional literacy two principles are observed. The first is that the nature and duration of the training given should be adapted to the needs of the specific groups served. The members of non-literate communities[4] are, to a greater extent than those of literate communities, the product of their specific

1. Kotinsky, Ruth. *Elementary Education of Adults: A Critical Interpretation.* New York, American Association for Adult Education, 1941, p. 54. (*Studies in the Social Significance of Adult Education in the United States*, No. 26.)
2. Conference of Provincial Representatives, Zaria, Nigeria, 1950. *Report on a Conference of Provincial Representatives to discuss the Adult Literacy Campaign, Northern Region, 12-16 June 1950.* Zaria, Gaskiya Corporation, 1950, p. 6.
3. Conference of Provincial Representatives, Zaria, Nigeria, 1950, op. cit., p. 6.
4. Little, Kenneth L. 'Social Change in a Non-Literate Community', in Ruopp, Phillipps, ed. *Approaches to Community Development.* The Hague, W. van Hoeve, Ltd., 1953, pp. 87-96.

cultures. Their level of achievement, needs and aspirations vary widely in relation to anthropological and geographic factors, and the social, political and economic forces that act within and upon the community. The immediate demand for literacy is recognized in widely varying degrees. The examples which follow make clear the nature of some of these differences.

A field worker in South Africa reported that the young people and adults who attended her literacy classes required training that would enable them to: read and write letters within the family, be able to locate streets, buildings, etc., observe danger warnings in the street and at work, follow simple directions in many everyday situations; be able to read a newspaper to keep up with current happenings and to obtain information; be able to read 'how-to-do-it' books and little books on healthy living, the best foods to eat, better ways of farming, etc.

Distinctly higher levels of efficiency are required to meet the following additional needs of illiterate adolescents and adults reported by a national leader in Thailand: (a) to keep in touch with people and developments throughout the country and to know its ideals and aspirations; (b) to learn about social, political and economic problems, to participate in their solution, and to understand the reasons for certain actions or decisions; (c) to attain greater economic independence (many who cannot read are at a distinct disadvantage in securing jobs; and those who own or manage their own business are greatly handicapped because they cannot follow market trends and the factors that influence them); (d) to prepare for the priesthood.

Reports from various parts of the world indicate that a need for still higher levels of literacy is developing rapidly. In discussing the goals to be achieved through literacy, the National Seminar on Literacy in Delhi, India,[1] pointed out the following facts: The reader must not only master the mechanics of reading, but he must grow in his awareness of 'the social context' of what he reads and of 'the forces operating in his environment'. Only by this means can he understand and evaluate what he reads, make wise decisions and sense the direction of desirable social changes and government policies.

The foregoing examples indicate that widely different levels of competence in reading and writing may be needed in achieving the goals of different groups. It is obvious, for example, that the demands made upon groups in meeting only the simple practical needs of daily life are far less exacting than those made upon groups which aspire also to play an important role in social reconstruction. The immediate goal of literacy training in each group is to prepare young people and adults to meet effectively the demands of everyday life. It follows that each community has the responsibility of deciding on the nature and duration of its literacy programme in the light of its specific needs. But the demands which must be met if individuals are to participate in the activities, life and thought of the larger community of which they are a part should also be studied. It is equally important to enrich the experience of individuals and open up new avenues of pleasure and inspiration through reading. A literacy programme[2] designed only to promote ability to solve immediate problems is very limited.

A second principle observed in the promotion of functional literacy is that the training given should be based on compelling motives for learning to read and write. Progress is far more rapid when the trainees recognize clearly the goals sought and are eager to attain them. Accordingly, the expressed motives of the group should be given chief emphasis in the planning of literacy programmes, in announce-

1. National Seminar on the Organization and Techniques for the Liquidation of Illiteracy, Jabalpur, 1950. *Report.* Delhi, Indian Adult Education Association, 1951, p. 46.
2. Griffin, Ella. 'Writing and Illustrating Books to Follow Literacy Campaigns', *Fundamental and Adult Education*, Vol. V, No. 3, 1953, pp. 122-7. Paris, Unesco.

ments of the opening of classes, in the development of training activities and when persistent effort has to be stimulated.

The difficulty in following such a plan is that strong motives for learning to read and write have been acquired to a varying extent. This fact is clearly illustrated by the results of a recent study in West Africa. The investigator[1] found that the non-literate tribes of that region varied all the way from 'complete self-satisfaction' in their illiterate status to 'a burning desire' to learn to read and write. Similar reports have come in from many other areas of the world, though motives for literacy have spread very rapidly during recent years.

We shall consider first the problems posed by those who have not as yet acquired compelling motives for literacy. Experience shows that it is more or less futile to try to promote literacy among such groups until keen interest in learning to read and write has been awakened. As pointed out earlier, interest can be aroused readily, as a rule, by creating situations in which it is apparent that ability to read and write would aid greatly in solving some urgent problem or in securing some satisfaction or reward which is greatly coveted. When such advantages are recognized, most young people and adults are willing to put forth the effort needed to attain literacy. The example that follows shows how keen interest was awakened in one group.

The members of a non-literate community were greatly disturbed because their crops were very poor and quite inadequate for local needs. Meetings were held under the leadership of a fundamental education team to find out what could be done. As the discussion went forward the group decided to invite a successful farmer from a neighbouring community to discuss their problem with them. As he described his own procedures in preparing the soil, in putting in crops, and in caring for them, he was asked where he had obtained the information to guide him. In reply he displayed bulletins from an agricultural station, pointed to pictures that illustrated the steps he had described, and gave directions for securing the bulletins. The group recognized at once that they would have to be able to read and write. Before the close of the meeting a plea was made for literacy training.

Equally powerful motives for learning to read have arisen from efforts to solve other problems, such as to improve water and sanitary conditions, to prevent the spread of contagious diseases, to take better care of young children, to select a balanced diet, to raise livestock more effectively, to compete more successfully with other communities in making goods for sale. The value of such an approach to literacy training lies in the fact that it is based on problems and needs that are uppermost in the minds of a group. The effects of disregarding such motives were strikingly illustrated on an island in the Sulu Sea. Because parents could see little value in the training provided in school for their children, very few attended. As a result, the parents were asked by government authorities to come together for a conference. The natives arrived with their hands on their knives, fearful of punishment. The chief difficulty soon became apparent when the chief said, 'If you would teach in our own language, and if what you taught made us better farmers and fishermen, we would not only send all our children, but would come ourselves.'

As the value of reading is discovered in one field, its use in others usually expands rapidly, as shown by the following example. The people in a densely populated area north of Manila were very poor up till 1949. They were well placed, however, to supply Manila with food but, unfortunately, they did not know how to produce it. It so happened that an agriculture extension worker had recently started a project with the schoolchildren on how to raise chickens. As soon as this project was well

1. Reported by President Horace Bond, Lincoln University, Lincoln, Pennsylvania.

under way, the value of raising chickens and eggs for sale was discussed and demonstrated in meetings with adults. Widespread interest was soon awakened in raising chickens. This in turn gave rise to a desire for ability to read and write in order to obtain and read bulletins providing information. As the economic status of the people improved, they saw that they might produce other types of food also. This created the need not only for reading various types of bulletin, but also for keeping posted on market prices and on the demand for different types of product. As their ability to read increased, they soon used it in keeping posted on current events and on community and national issues. Thus the use of reading at first to meet a practical need soon expands, if properly encouraged and directed, to include many motives for reading and writing, which may lead ultimately to the development of an informed, alert, highly literate community.

Many, if not most, non-literate groups have already acquired strong motives for learning to read and write before any organized effort at community improvement begins. These motives are usually so vital that they require immediate attention. To neglect them often results in alienating a group and in endangering the success of the project as a whole. To provide immediately literacy training based on these motives is to win the confidence and support of the group and to hasten the day when reading and writing can be used in the solution of urgent group and individual problems. It follows that one of the early steps which should be taken by any fundamental education team is to determine the nature and strength of the existing motives for literacy.

Such motives vary among groups and also among the individuals in a group. Some motives[1] are very subtle and difficult to define—a belief in a literate way of life, the desire to maintain status with children and friends, unwillingness to be a victim of ignorance and the tool of others, a compelling desire to learn and excel, the lure of graduation when literacy certificates are granted.

In the foregoing discussion, the inadequacy of the minimum standards of literacy that prevailed earlier and the importance of training that ensures functional literacy have been pointed out. To achieve this, two principles are followed: firstly, the incentives and materials used are directly related to the motives that stimulate specific groups to want to learn to read and write; secondly, the length of the training given and the level of literacy aimed at are adjusted to the specific needs of the group or culture. Motives are of two types: those that have their origin in the urgent and practical needs of a group and are cultivated by those in charge of community improvement programmes; and those that have been acquired in other ways by the members of a group. Each type is very important. The time at which literacy training should be introduced and the nature of the motives which will prove most effective in specific communities can be determined only after study. Possible procedures to use in this connexion will be considered in Chapter XII.

CRITERIA OF FUNCTIONAL LITERACY

As implied in the foregoing discussion, *a person is functionally literate when he has acquired the knowledge and skills in reading and writing which enable him to engage effectively in all those activities in which literacy is normally assumed in his culture or group.* Since these activities vary, a criterion is needed which will serve as a guide in determining the training essential to produce functional literacy within a particular group.

1. Rudolfer, Noemi da Silveira. 'Psico-pedagogia do adolescente e do adulto analfabetos', in: Brazil. Campanha de Educação de Adultos. *Fundamentos e metodologia do ensino supletivo.* Rio de Janeiro, Ministerio da Educação e Saude, 1950, pp. 45-6. (Publicação No. 12, Agosto de 1950.)

Types of character used in the writing of various languages

1. Icelandic
2. English
3. French
4. Spanish
5. Russian
6. Macedonian
7. Greek
8. Hebrew
9. Arabic
10. Japanese
11. Korean
12. Chinese
13. Thai
14. Tamil
15. Telegu
16. Malayalam
17. Gurmukhi
18. Oriya

Such a criterion may be defined to advantage in two ways: (a) quantitatively, in terms of specific attainments or in terms of the amount of instruction necessary to bring the individual to a satisfactory level of literacy; and (b) qualitatively, in terms of the content and methods of teaching necessary to achieve the ends in view. The former will be discussed in this section, and the latter in Chapters VII, VIII, X and XI.

One of the best quantitative measure of functional literacy is the ability of trainees to engage effectively in specific literate activities. For purposes of illustration let us assume, first, that the chief uses of literacy in a community are to read and understand simple news items and notices posted in the village centre and to read and write letters to members of one's family. Progress towards satisfactory attainment can be measured through a graduated series of exercises which test ability in these activities. They should begin with very simple reading and writing activities and extend to those which are as difficult as any in which the members of the group will normally engage. Training should continue until individuals are able to perform the most difficult reading and writing activities included in the test.

A second illustration is based on the practices of many missionaries. An important goal of the literacy training given is to enable the trainees to read and understand religious materials. Tests of satisfactory attainment include selected songs, passages of sacred literature and other materials used in religious activities. Instruction continues until those trained are able to read the test passages with satisfactory accuracy and comprehension. Obviously, the level of literacy required is much higher than in the previous example. The same procedure in principle can be applied to determine functional literacy for any group. The greater and more varied the demands made on the reader, the broader and more difficult the test exercises.

Instead of using specific measures of competency as described above, tests[1] of ability to read and write may be developed and applied. They could include measures of all the specific abilities in reading and writing needed for participation in the various literacy activities. For reading,[2] tests could be prepared measuring such aspects of reading ability as word recognition, word meaning, sentence and paragraph meaning, and rate of reading. Each test should include exercises varying in difficulty from very simple to very difficult. In order to determine how well trainees should perform on the tests before the training ceases, the test may be given to members of the community who are sufficiently literate to meet current needs. Through a study of the records thus secured, it would be possible to determine the level of achievement on the test which all should attain. Thereafter, the test could be used to determine whether trainees in literacy classes had attained an appropriate level of achievement and also to compare the level of literacy demanded in different communities using the same language.

When literacy problems are considered on a national level, the number of years of schooling is often used as a basis on which to define standards. A person may be considered functionally literate whose attainments in reading and writing are equivalent to those of a person who has successfully completed three years' schooling.[3] Four years of schooling have often been proposed as a minimum standard for all

1. Buros, Oscar Krisen. *The Third Mental Measurements Yearbook*. New Brunswick, N.J., Rutgers University Press, 1949, pp. 1047 et seq. (Includes descriptions and critical reviews of most of the mental and achievement tests in current use.)
2. Great Britain, Ministry of Education. *Reading Ability; some suggestions for helping the backward*. London, HMSO, 1950, pp. 10-13. See also: Duncan, John. *Backwardness in Reading: remedies and prevention*. London, George G. Harrap & Co. Ltd., 1953, pp. 20-1.
3. ibid.

citizens in the United States. Yet army officials of both the United States[1] and England are insisting on the equivalent of five years, or more, of schooling for all service men.

The use of such criteria is possible only in communities that have well-organized education systems and fairly uniform standards of achievement at the different grade levels. In order to establish an appropriate criterion for a given community, two procedures are possible. A not very objective one is to compare the skills needed to engage in essential literacy activities with those attained by pupils who have completed varying numbers of years of schooling. If due allowance is made for the differences in vocabulary used in reading and writing by children and adults, a criterion can be defined with reasonable accuracy. A much more objective procedure is to prepare tests of ability to engage in essential literacy activities and give them to children or adults, or both, who have been in school for varying lengths of time. The example which follows is based on such a study[2] in the Philippines.

The tests were prepared on the assumption that functional literacy consists of 'first, ability to read and interpret satisfactorily reading matter such as ordinary letters, newspapers, notices and signs, advertisements and tax receipts; second, ability to write an ordinary letter'. Ability to solve simple arithmetic problems was also measured. The tests were given to 6,974 pupils in grades III, IV, V, VI, or VII before they left school, and to hundreds of adults. A sampling procedure was used to eliminate extreme cases and include only children and adults of average capacity. Because of differences in the language of instruction used, half of each group took the English version of the tests and the remainder took the vernacular version. Of the adults who took the English version, the percentages of the subjects scoring 73 or higher on the reading test were 33.1, 46.1, 62.1 and 78.0 respectively for those who had completed grades III, IV, V and VI. The corresponding percentages for those who took the vernacular tests were 39.9, 57.3, 63.3 and 74.8. The percentages for handwriting were all higher. Attention is directed next to the scores for children who took the English version. For those who had been in school for $3\,^3/_5$ (3 years, 6 months), $4\,^3/_5$, $5\,^3/_5$ years, or who had reached grades equivalent to this period of time, the percentages were 23.3, 57.0 and 79.5 respectively. The corresponding percentages for those who took the vernacular tests were 35.8, 60.4 and 81.4. Assuming that the tests used were valid as measures of functional literacy, it is apparent that the equivalent of six years of schooling is essential to ensure satisfactory attainments on the part of at least three-fourths of the trainees.

The use of prevailing educational standards in defining criteria of functional literacy has certain merits. There is a marked similarity in the habits and skills, particularly of reading, acquired by both children and adults up to and including the levels of achievement with which we are here concerned. Besides, the use of such standards enables a community or a nation to co-ordinate its efforts in furthering literacy. On the other hand, their use has serious limitations. They are only indirect measures of functional literacy, and if they are based wholly on the achievements of children, they may be invalid when applied to adults. When used, they should be based upon and accompanied by the results of objective tests given to both children and adults—as in the example from the Philippines.

When defining a satisfactory criterion for functional literacy, it is essential to adopt a relatively high standard, for there is very little printed matter related to adult needs and interests which can be read by anyone who has not acquired the

1. Goldberg, Samuel. *Army Training of Illiterates in World War II*. New York, Bureau of Publications, 1951, p. 286. (*Contributions of Education*, Teachers College, Columbia University, No. 966.)
2. Flores, Gerardo. 'A Study of Functional Literacy for Citizenship in the Philippines', *Fundamental and Adult Education*, Vol. II, No. 3, 1950, pp. 24-9. Paris, Unesco.

reading ability normally attained by children who have had four, or even five years, of schooling. So much time and energy are expended in preparing less difficult material that it cannot be produced in sufficient quantity to supply adult needs. Then again, as a community becomes more literate, its reading matter usually becomes more varied and difficult. Hence a level of achievement that was suitable at the outset soon proves inadequate.

A surprisingly large proportion of adults who have attended literacy classes and have received certificates based upon 'minimum standards of literacy' sooner or later are unable to engage in even the simplest literacy activities. The most frequent explanation offered is that the training received had been insufficient to enable them to read little, if any, of the material available. Their reading skills disintegrate through disuse. Not infrequently more than 20 per cent of the recruits in countries having very high literacy ratings have been found to be unable to read a very simple passage or write a short letter.

Finally, in a study[1] of the adults in a typical community in the United States, comparisons were made of the oral and silent reading ability of 151 adults with that normally achieved by children who had been in school for the same length of time as the adults had been. It was found that: first, the average reading ability of the adults corresponded closely with that of children who had attended school for the same number of years; second, those who had received as much as six or more years of schooling averaged slightly higher than did the pupils with whom they were compared; and, third, those who had received only five years or less of schooling tended to score below those with whom they were compared. Most of the adults who had received less than three years of schooling were unable to score at all on the tests. By the time they left school they were not able to read with much ease or efficiency. Because they later read very little, if at all, they lost the ability. It was concluded that the equivalent in reading achievement of that normally acquired in four years of school, and preferably five, was essential.

A relatively high standard may discourage many adults from attempting to become literate; the programme should therefore be organized in a series of stages. The standards for the first stage should be low enough to be easily and quickly reached. They should be adequate, however, to enable the pupils to engage in some of the simpler reading and writing activities of their communities. While one level is being attained, motives should be developed for aiming at the next. This plan has already been found very effective in such areas as the Gold Coast, Africa, where both preliminary and final literacy certificates are granted.

THE SIZE OF THE TASK FACED

We shall consider firstly, the extent of illiteracy throughout the world,[2] and secondly, the proportion of children of primary-school age who lack schooling.

THE EXTENT OF ILLITERACY

Data relating to the extent of illiteracy are summarized in Tables 1 and 2. They are based on the most recent official reports available to Unesco at the time of

1. Gray, William S. and Leary, Bernice E. *What Makes a Book Readable.* New York, The Macmillan Company, 1937, pp. 86-90.
2. Unesco. *Progress of Literacy in Various Countries.* Paris, 1953, 233 p. (*Monographs on Fundamental Education*, VI.)

TABLE 1. Number of countries and territories reporting illiteracy percentages classified by illiteracy percentage and age group (latest available data since 1930)

Age group	Number of countries: For which data are available	By illiteracy percentage: 0-9 %	10-19 %	20-29 %	30-39 %	40-49 %	50-59 %	60-69 %	70-79 %	80-89 %	90+ %
All ages	11	—	—	—	—	1	1	1	—	5	3
5, or 7 & over	8	1	—	2	2	1	—	1	1	—	—
9, 10, or 11 & over	18	5	4	2	—	1	—	3	2	—	1
14, 15, or 16 & over	58	8	6	12	6	6	7	4	3	4	2
'Adults'	1	—	—	—	—	—	—	—	—	1	—
Not stated	13	3	1	1	—	—	—	1	2	2	3
Number of countries and territories reporting	109	17	11	17	8	9	8	10	8	12	9
Estimated total 1952 population in these countries and territories (millions)	2003	254	230	160	11	74	581	81	46	473	93

Median illiteracy percentage among 109 countries and territories: 41.7.
Percentage of total world population covered: 81. [Source: Unesco, June 1954.]

TABLE 2. Number of countries and territories reporting illiteracy percentages, classified according to continents (latest available data since 1930)

Classification	Number of countries: For which data are available	By illiteracy percentage: 0-9 %	10-19 %	20-29 %	30-39 %	40-49 %	50-59 %	60-69 %	70-79 %	80-89 %	90+ %
Africa	21	1	—	1	1	—	—	3	4	5	6
America, North	24	6	3	6	2	—	2	3	1	—	1
America, South	12	1	2	2	1	2	3	—	—	1	—
Asia (excl. U.S.S.R.)	25	1	—	1	1	5	3	4	3	6	1
Europe (excl. U.S.S.R.)	17	6	1	6	2	2	—	—	—	—	—
Oceania	9	2	4	1	1	—	—	—	—	—	1
U.S.S.R.	1	—	1	—	—	—	—	—	—	—	—
Total number of countries and territories	109	17	11	17	8	9	8	10	8	12	9
Estimated total 1952 population in these countries and territories (millions)	2003	254	230	160	11	74	581	81	46	473	93

Median illiteracy percentage among 109 countries and territories: 41.7.
Percentage of total world population covered: 81. [Source: Unesco, June 1954.]

writing from 109 countries and territories. They cover about 80 per cent of the world's population. Important omissions include some of the northern European countries, Australia, New Zealand, and Japan, in all of which little or no illiteracy exists, and large populations of Africa for which no data were available.

An analysis of the entries in these tables shows that almost half of the countries (53 out of a total of 109) record illiteracy percentages under 40. These countries, however, are not the most populous areas of the world. The median illiteracy percentage, taking the size of population into account, is almost 55 per cent. This would seem to justify the prevailing impression that about half of the world's population is illiterate. Illiteracy predominates in the continents of Africa and Asia, varies widely among the countries of North and South America, and has been largely eliminated in Europe, Oceania and the U.S.S.R. Every continent, however, still faces genuine problems in this respect.

When standards of 'functional literacy' are applied, the size of the illiterate group is increased. In 1920, for example, the Census Bureau of the United States reported that about 6 per cent of the population was illiterate. The measure of illiteracy used was 'no schooling whatsoever'. During the first world war,[1] when 1,522,256 soldiers and sailors were given tests of 'ability to read and understand newspapers and to write letters', 24.9 per cent of them were unable to do the simple tasks assigned. These findings indicate that there are significant differences between illiteracy data based on national censuses and those secured through the use of tests of functional literacy. Tests given during the second world war showed similar results; however, the percentage of functionally illiterate was not so great.

Data secured in Great Britain[2] and other countries support the contention that the percentage of adults who cannot qualify as functionally literate is much greater than census records imply. On the basis of the limited evidence available it may be estimated that 65 per cent (or possibly 70) of the world's population falls below the level of functional literacy. Stated differently, about 50 per cent of the world's population is quite illiterate and another 15 per cent, or more, is nearly illiterate. These findings provide a quantitative measure of the problem.

LACK OF SCHOOLING FOR CHILDREN

Even more important than the effort to eliminate illiteracy among adults is the provision of educational opportunities for all children. The size of the task is indicated in a sense by the following statement based on an extended study[3] of children of school age: 'Of every 10 children in the world, 5 do not go to school; 4 are in primary school, and 1 is receiving post-primary education.' These findings show that the world has as yet assumed only half of its responsibility towards its children. Besides, four-fifths of those in school are in primary schools with so few grades that they barely carry the child to the level of functional literacy. To assume their full responsibility, many areas of the world need to extend educational facilities a great deal, both in terms of the number of children served and the length of schooling provided.

As a rule, problems relating to the education of children are not isolated at once in a programme of fundamental education. In some communities, literacy training is first provided in classes attended by both children and adults, who are taught as

1. 'What National Defects Result from the Weak Spots in our Public School System', *Research Bulletin of the National Education Association*, Vol. I, September 1953, pp. 276-86. Washington, D.C.
2. Great Britain. Ministry of Education. *Reading Ability*, op. cit.
3. Unesco. *World Survey of Education*. Paris, 1955, pp. 13-31.

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a unit with the same materials. In the course of time, however, the need for primary schools adapted to the special requirements of child life is recognized. It is coming to be accepted, too, that the school should be community-centred, as indicated by the following statements presented in 1949 before the Inter-American Seminar on Literacy and Adult Education: 'The primary school is the school of the people. It is the fundamental education agency that reaches the masses. It is not simply a means of transmitting culture, but an institution with a wider range of activity and social influence.'[1]

Similar views have been adopted in many countries. As stated, for example, in the *1950 Yearbook* of the Philippine Association of School Superintendents, the activities of the school 'go far beyond the limits of the school compound and reach the homes, the occupations, the leisure activities of the people and all the other aspects of social living. Its subject-matter is not the books but the life which the children and the adults live. Its activities are those of living instead of imitating life.'[2] If the teaching of reading and writing in such schools is to justify itself fully, the content and methods used should provide children with the knowledge and skills that will enable them to achieve the vital personal and social objectives for which the schools were established.

The problem today is huge. Training must be provided for at least half the children and adults of the world. In addition, further training is needed for millions of children and adults who at some time have attended school or adult classes, but are not as yet functionally literate.

1. Tejada N., Carmela. 'Tema IV—La escuela primaria y el analfabetismo' in : Inter-American Seminar on Literacy and Adult Education, Petropolis, Rio de Janeiro, 1949. *La educación fundamental del adulto americano*. Washington, D.C., Union Panamericana, 1951, p. 97. (*Seminarios Interamericanos de Educación*, No. 7.)
2. Philippine Association of School Superintendents 'Education in Rural Areas for Better Living', *1950 Yearbook*. Manila, Bookman Inc., 1951, p. 5.

CHAPTER II

INFLUENCE OF TYPE OF LANGUAGE ON LITERACY TRAINING

According to some authorities, the number of languages spoken today, exclusive of minor dialects, is approximately 2,800.[1] Others affirm that the number is much greater. The chart between pages 40 and 41 includes examples from widely spoken languages, radically different in structure and in the kinds of characters used.

But, are the various languages so different that the problems of teaching children and adults to read and write them must be studied separately? Or can they be classified into a few types around which the chief issues can be organized to advantage? And if so, on what basis can languages be classified, and how do the problems of teaching reading and writing vary among the different types?

TYPES OF LANGUAGES

The languages of the world have been classified by linguists[1] in many ways. Of special value for our immediate purposes is their classification into three groups by the type of character used in writing.

In the order of their historical development, these are:

1. Word-concept characters, commonly called ideographs (more properly called logographs),[3] as in Chinese. Each character used in writing represents an idea or concept, more strictly a morpheme, i.e. a meaningful linguistic form, rather than a sound.
2. Syllable-sound characters, often called syllabaries, as in Cherokee Indian or Japanese. Each character used represents the sound of a syllable, which may consist of a single phoneme[4] or a group of phonemes.
3. Letter-sound characters, as in all alphabetic languages. Each letter represents the sound of one, or sometimes more, phonemes.

The characteristics of each of these groups will now be discussed in some detail. Furthermore, some of the problems of teaching reading and writing within each group will be considered in an effort to discover the influence, if any, of the form and structure of written languages on teaching methods.

1. Pei, Mario A. *The World's Chief Languages.* 3rd ed. London, George Allen & Unwin Ltd., 1949, p. 15.
2. Diringer, David. *The Alphabet: A Key to the History of Mankind.* London, Hutchinson's Scientific and Technical Publications, [1948], 607 p.
   Gelb, Ignace J. *A Study of Writing: The Foundations of Grammatology.* Chicago, The University of Chicago Press, [1952], 295 p.
   Sapir, Edward. *Language, an Introduction to the Study of Speech.* New York, Harcourt Brace and Company, 1921, 258 p.
3. Gelb, op. cit.
4. A phoneme is a basic sound of a spoken language.

WORD-CONCEPT CHARACTERS

Today, the Chinese form of writing is the only one consisting entirely of ideographs, or word-concept characters. Nevertheless, it is used by about one-fifth of the world's population. For hundreds of years each community of China pronounced the words represented by the characters in terms of its own dialect. People living in various parts of the country could read and understand the same written language, but were unable, as a rule, to understand the speech or oral reading of those using other dialects.

Ideographs are the smallest units of the Chinese written language. In printed form the characters assume the appearance of squares, each occupying about the same amount of space and formed by different kinds of strokes. The number of strokes in each character varies from 1 to 52—most characters containing less than 14.[1]

The Chinese language is monosyllabic,[2] in the sense that each syllable is usually one morpheme. It has no inflexional suffixes, prefixes or phonetic modifications to indicate number, person, sex, etc. Wherever necessary, such relations are explicitly stated by the use of suitable words. In the classical language, which is still used to a considerable extent today, each syllable (written with one character) is a word and the only rules of grammar are rules of syntax. In the modern spoken language, polysyllabic (mostly disyllabic), derived and composed words are often formed from monosyllabic morphemes, just as *droplet* is made from *drop* and (diminutive suffix) *-let*, or *schoolhouse* from *school* and *house*. The language has even greater fluidity than English in its parts of speech. Thus, like *cost*, *set*, many a Chinese word can be a verb, a noun, or an adjective, and its function is determined by its place in the sentence. As a rule, the word order is that of subject, verb and object, or complement. However, there are sentences with a verb, but no subject, or a subject, but only a substantive predicate.

Chinese is also a 'tonal' language. A tone is 'an accoustic pitch or musical stress, or change of pitch or stress only.... The tones are of the utmost importance; they are just as much a part of the word as a vowel. Without the tone, the identity of the word is indeterminate. A word pronounced on a low pitch means one thing, on a rising pitch another, on a high pitch another',[3] just as the identity of *b*d* is unknown unless we know whether the vowel is *a*, *e*, *i*, or *u*. These tones should not be confused with the 'stress or length or abruptness' of the Indo-European languages. Complicated and numerous as the Chinese characters are, it frequently happens that the same character is used for writing different words and that the same word is written with variant forms of characters. But this is of minor importance.

There are two forms of the Chinese language, the literary and the vernacular. 'Literary Chinese is a classical language, used only in writing; vernacular Chinese is a spoken language, now used both in speaking and writing.'[4] The written use of the vernacular on a large scale dates back less than 40 years. The problem of reading Chinese is thus complicated by the fact that one meets with both kinds of the written language today. In the classical language, besides a difference in vocabulary there is frequent use of historical or classical allusions, so that the words used often refer to something beyond the surface meaning. In the vernacular, on the other

1. Wang, Fung Chiai. 'An Experimental Study of Eye Movements in the Silent Reading of Chinese', *Elementary School Journal*, March 1935, pp. 527-39.
2. De Francis, John Francis. *Nationalism and Language Reform in China*. Princeton, N.J., Princeton University Press, 1950, Chap. 8.
3. Diringer, op. cit., pp. 98-99.
4. Wang, op. cit., p. 528.

hand, one normally calls a spade a spade. Although the literary form still predominates, the use of the vernacular has increased rapidly in popularity. Clear evidence to this effect is found in its increasing use in schools.

Historically, Chinese has been printed in vertical alignment, the lines succeeding each other from right to left and the reader following the lines from top to bottom. In recent years, horizontal alignment has been introduced, the lines succeeding each other from top to bottom and the reader following the lines from left to right. The vertical alignment is still the more widely used. With these characteristics of the Chinese language in mind, attention will be directed next to the methods used in teaching children and adults to read and write it.

Methods of Teaching Children to Read and Write

Of the many problems of teaching children to read Chinese none has been discussed more widely than the methods to use in helping pupils to learn to recognize the various characters. Because of their very nature, they have been taught largely in the past by focusing the pupil's attention on their form and visual characteristics. As an aid to learning, the characters having the fewest strokes were taught first. They were written on pieces of paper about two inches square. Usually ten or more characters were taught at a time and were then reviewed the next day before new characters were introduced.

The characters were learnt by visual scrutiny, association of form and pronounciation, until the characters could be recognized at sight. Since many different characters were pronounced alike, other aids to learning were often used. When, for example, a new character was written on a piece of paper, a picture, or another character of similar pronounciation that had been learned earlier was drawn on the reverse side.

At first, attention was concentrated on the recognition and memorization of individual characters. When the pupils reached the age of 7 or 8—or earlier in the case of children of high intelligence—the teacher usually began to explain the meanings of characters. As soon as a pupil had learned about a thousand characters, he began to read from textbooks for children. Most of the guidance was given individually. When a lesson began, the pupil went to the teacher's desk. The teacher read a passage aloud, sentence by sentence, the pupil repeating each. These sentences were repeated several times until the pupil could read them alone. He then returned to his own desk and read aloud to himself until he had memorized the passage. He then returned to the teacher's desk to recite what he had learned. If the recitation was fluent and uninterrupted, a new passage was assigned.

These procedures, which were necessitated largely by the kinds of characters used and the tonal quality of the language, have been criticized by the Chinese as slow, arduous and uninteresting. At the beginning of this century, after many conferences and experiments, changes began to occur, notably the introduction of phonetic symbols as aids in learning the characters. This trend was greatly facilitated by an official ruling[1] which stipulated that the earlier practice of pronouncing the characters in terms of the local dialect was to be discontinued in elementary schools. Instead, the standard national pronunciation was to be taught through the aid of phonetic symbols, of which there were 37. As a rule, a character was represented by one phonetic symbol, or at most by two or three. Although the ruling was not

1. Chu Ching-nung and others. *Chaio yu ta tz'u shu* (An encyclopedia of education). Shanghai Commercial Press, 1935.
De Francis, op. cit., Chap. 4.

generally enforced at the time phonetic symbols proved to be of great value as aids in learning characters and their use in the teaching of reading spread widely.

In books for the early elementary grades, the appropriate phonetic symbols are now printed beside the characters. Each character is represented, as a rule, by one, two or three symbols—usually a consonant and a vowel, and sometimes a medial. In such a word as *chang* the *ch* is represented by a consonant symbol, the *a* by a medial, and the *ng*, being a combination of very high frequency, by a vowel ending.

Pupils are first taught the phonetic symbols directly, one after the other, according to the procedure used when pupils are taught to read by a phonic method. As soon as all the symbols have been learned and some skill has been acquired in combining them, the Chinese characters are introduced, accompanied by the appropriate phonetic symbols. As familiarity with the characters increases, the use of the symbols is discontinued. They are not used at all in books for advanced pupils. When new characters are encountered, the pupils find them in dictionaries, accompanied by the phonetic symbols.

Specific teaching procedures have varied a great deal. For example, the sentence method has been experimented with in some schools. Very simple sentences are used in the early reading lessons and new characters are learned by sight as they are introduced. As the pupils become familiar with the basic sounds of the words known at sight, use is made of the phonetic symbols, which are printed beside, or above, the new characters. Obviously, the problems of learning to read Chinese are greatly influenced by the characteristics of the language.

This applies also to handwriting. The characters must be learnt individually. In former times the first step in learning to write was to trace over red printed characters with black ink. After several months of practice, or when the pupil had learned to control the brush, specially prepared materials were used as models. Great emphasis was placed on the recognition of all details of a character and its accurate reproduction. Practice continued as long as the need for it existed—often throughout life in the case of scholars. Many of these formal methods still persist.

The first step in the modern teaching of Chinese handwriting is usually to have pupils learn to write the phonetic symbols and the basic strokes of the characters. The second step is to have them copy materials prepared by specialists in writing. Medium-sized characters are practised first, and then small and large characters. Much practice in writing is provided by composition work in which model passages are copied in order to increase the use of written expression.

The 'Quick' Method of Teaching Adults to Read

To stamp out illiteracy in China, use has been made of a so-called 'quick method'[1] of teaching the characters in three steps.

The first step is to teach the 37 national phonetic symbols, which are presented on picture charts. Each symbol is associated with a picture of a familiar object, the name of which has a familiar sound. Various songs are used to assist the pupil to memorize the pronounciation and order of the symbols. It is reported that all 37 symbols can be learned in six hours. After this goal has been achieved, students are taught to spell spoken words through the use of the symbols. As the words are spelled, the corresponding symbols are pronounced aloud several times. Various

1. A digest based on *Su ch'êng shih tzu fa chiao hsueh shon ts'ê* (Teaching manual for the quick method of reading Chinese characters), compiled and published by The East Asia People's Publishing Society, Shanghai, 1952; supplemented from other sources.

sentences containing these words are given as examples. It is not expected that students will pronounce correctly at first, but they improve with practice. This step takes 30 hours.

The second stage begins with the reading and explanation of characters with phonetic symbols printed beside them. The materials to be read include four volumes based on a selected vocabulary of 2,000 characters, which are systematically arranged according to similarities of form, meaning and sound. Attention is focused at this stage on the pronounciation and meaning of each word. As soon as the characters are known at sight, they are presented without the phonetic symbols. An experimental class began by learning 30 characters daily in a two-hour session; the number increased rapidly. According to the manual, this second stage usually takes about 100 hours during which from 1,500 to 2,000 words are learned.

The final step consists in teaching the students to read textbooks and other materials so that they may become familiar with the practical uses of individual characters in phrases and sentences. In this connexion oral reading is emphasized. At the same time, the students are required to study handwriting, composition, punctuation signs and the use of dictionaries. This step requires about 150 hours, but the students are then able to read newspapers and write simple letters or short notes with a minimum stock of characters. All in all, the three steps require about 300 hours.

Current Problems

The establishment of a basic vocabulary is a problem which has been studied[1] for decades by many individuals and agencies. In this connexion the urgent need of substituting vernacular words and forms of expression for literary ones has repeatedly been emphasized. A second problem relates to the simplification of the form of Chinese characters and a third to the possibility of adopting a phonetic system without the use of the traditional Chinese characters. The history of the varied efforts that have been made to develop a system of letter-sound characters that can be applied to the Chinese language has been documented by De Francis.[2]

These and other problems were recently discussed by Wie Chueh,[3] Vice-Chairman of the Committee for the Research on the Reform of the Chinese Written Language. He concluded that the nature of the structural elements in the Chinese written language vitally affected the problem of teaching Chinese to read and write. The need for changes is so urgent that the committee of which he is chairman was asked in 1952: '(1) To do research work on the Chinese characters and to draw up a plan for their simplification. (2) To work out a new phonetic system for the Chinese written language.' The gigantic task of reforming a language which has been used for thousands of years will be carried out in two stages.

In the first stage, the Chinese characters now in use will be simplified. This will involve two steps. Where several characters have the same pronunciation, only one will be retained. Furthermore, the characters themselves will be simplified by reducing, whenever possible, the number of strokes used in making them. The committee has already made a selection of about 500 simplified characters, 'which are much easier to read and write than the original characters'. After due conside-

1. See *Chi pên tzû hui* (A fundamental vocabulary of Chinese characters), compiled by Chuang Chai-hsüan and published by the Chung Hua Book Company, Shanghai, 1938, for a study of basic vocabulary and a comparative list of 5,262 characters compiled from analysis of six different works.
2. De Francis, op. cit.
3. Chueh, Wie. 'The Problem of Reforming the Chinese Written Language', *People's China*, 10, 1954, pp. 18-26.

ration and testing, these simplified characters will 'be given formal recognition'.

In the second stage a Chinese phonetic system for writing the common language (formerly called Mandarin), will be devised, in accordance with the Peking pronunciation. It will be tried out experimentally and revised. Furthermore, a phonetically arranged dictionary will be compiled. After these and other preparatory steps have been completed, the 'new phonetic language will gradually be put into general use'.

The Chinese language is a striking example of the influence that the form and structure of a written language have both on the difficulties encountered in learning to read and write and the methods required in teaching. The problems are so complex that the written language must be radically changed if China is to become literate.

SYLLABIC-SOUND CHARACTERS

Most of the world's languages are written in characters that represent sounds.[1] Sometimes the characters used represent the sounds of syllables; in most languages they represent the sounds of the phonemes which are the basic sound elements in a language. Japan is the only big nation which uses syllabic-sound characters. They have also been used during recent years in a section of Africa and among the Cherokee Indians in the United States.

The Cherokee Indian Written Language

In the following discussion, brief reference will be made to the Cherokee written language, which uses syllabic-sound characters only. A copy of the alphabet appears in Plate I. It was printed in *The New Cherokee Advocate* on 25 August 1950 in an effort to revive the use of this alphabet among the Cherokee Indians. The top line in the chart represents the six basic (vowel) sounds, which are combined with consonants to represent the sounds of syllables. The left-hand column introduces the consonants, which are combined with each of the vowel sounds, with but one exception. In addition, there are a few consonants that are combined only with certain vowel sounds. Altogether, there are more than a hundred syllabic-sound characters. In preparing this alphabet, the inventor made wide use of Latin letters or modifications of them. The basic sound (or sounds) represented by each syllabic character is represented by the letter (or letters) to the right of it.

A sample of Cherokee printed material appears at the bottom of Plate I. Most of the words comprise two or more syllables. When writing the Cherokee language in syllabic-sound characters, it is necessary first to identify the syllabic elements of given words and then to represent each by its appropriate character. The reverse process is followed in reading. If the reader does not recognize a word at sight, he must identify its various syllabic characters in turn and combine them to obtain the pronunciation.

No description could be secured of the methods used in teaching the Indians to read and write their language. It may be assumed, however, that both children and adults first mastered the syllabic alphabet and then applied this knowledge in recognizing new words when reading or in spelling words when writing. Obviously, the problems of learning to read and write the Cherokee language through the use of syllabic-sound characters differ from those of learning Chinese.

1. Bodmer, Frederick. *The Loom of Language.* New York, W. W. Norton & Company, Inc., 1944, p. 47.

The Japanese Language

Japanese writing is a mixture of Chinese characters and syllabic-sound characters, or *kana* symbols, (see the example in the chart between pages 40 and 41), which are put together according to the Japanese rules of syntax. The origin of this unique kind of writing may be readily explained. The first writing used in Japan consisted of characters borrowed from China. However, their use soon proved to be quite inadequate for the Japanese language, which is multi-syllabic and agglutinative—that is, root words or their derivatives are modified by the addition of secondary roots, which gradually lose their original independence and become affixes or infixes. In order to overcome some of these difficulties, the Japanese first tried to select and use Chinese characters having the same sounds as the missing elements. This device was so cumbersome that syllable-sound characters, often called syllabaries, were introduced.

The Japanese syllabic characters, or *kana*, are of two types:[1] the *kata-kana*, or 'rigid' style, which has been used mainly in the past in learned works, official documents, and the transliteration of proper and foreign names; and the *hira-gana* ('plain', 'simple'), or cursive style, which is used chiefly in newspapers, novels, and in everyday life generally. Although the *kana* signs do not constitute a truly syllabic script, Japanese sentences may be written entirely in *kana* symbols, which may be either *hira-gana* or *kata-kana;* or in a mixture of Chinese characters and *kana* symbols. In the latter case, the *kana* symbols are used to represent what is genuinely Japanese or to give the Chinese characters their appropriate grammatical function and inflexions. Most adults usually employ both Chinese characters and *kana* symbols in writing. Children with a limited vocabulary of Chinese symbols usually rely largely on *kana* symbols in both writing and reading.

When Japanese syllables, as represented by *kana* symbols, are combined into words, a given word may have two or more meanings. Some of these meanings can be readily distinguished in oral speech by the pitch of the voice—a rising or lowering tone at the end of the word—or they are indicated by an auxiliary word, which may be a combination of syllables. When reading, one must determine the meaning through a careful study of the context.

Both the *kata-kana* and the *hira-gana* contain 47 syllables, which have been used for centuries. In addition, there is a sign for *n*, which is not independently pronounced. 'Unlike the *kata-kana*, the *hira-gana* signs have many variants... of which about 102 are used in printing; in everyday writing one sign is generally employed for each syllable. The *hira-gana* script is highly cursive; frequent ligatures make it exceedingly difficult to read.'[2] The *kana* signs represent only open syllables, that is consonants followed by vowels; this is the only type of syllable in the Japanese language. Diacritical marks are used to distinguish similar sounds.

Thousands of Chinese characters were used in Japanese writing. As a result of research and vigorous agitation, however, the number has been gradually reduced. In compliance with a recent regulation,[3] the number to be taught in schools was reduced to 881. Practically all of them have several pronunciations. As the number of Chinese characters in use has decreased, their proportion to the syllabaries has also been greatly reduced. Today there is approximately one Chinese character to three Japanese syllables (consisting of syllabaries) in adult reading matter. The proportion is about one to five in juvenile reading matter.

1. Gelb, op. cit., p. 159.
2. Diringer, op. cit., p. 173.
3. Kurasawa, Eikichi. *Outline Theory of National Language Education.* Tokyo, Iwasaki Shoten, 1950, 96 p. (*Teaching Profession series,* No. 20.)

As for the disposition of the characters on the page, 'nowadays, no fixed rule is observed; some books are even printed in columns to read from left to right and, to further complicate matters, there has arisen a new custom of writing horizontally as well', usually from left to right, but occasionally from right to left. In 1942 the Japanese Ministry expressed preference for writing from left to right. Studies have been made of the relative merits of horizontal and vertical script and of the various forms in which the Japanese language is written. The findings will be summarized in Chapter III.

Methods of Teaching Reading and Writing

How can children and adults be taught to recognize two different kinds of characters readily and to combine their use effectively in both reading and writing? Traditionally, the methods used in teaching children and adults have been essentially the same. The syllabic or *kana* symbols were learned first. After skill had been acquired in reading short words and sentences written in these symbols, Chinese characters were introduced. The simpler characters were taught first through the use of one of three general procedures: they were introduced individually and taught by the see-and-say method; they were learned through the use of syllabic symbols which were printed beside or above the Chinese characters; and they were sometimes taught as integral parts of sentences according to the usual sentence method.

At present, the general principle underlying the teaching of reading and writing is that the child should be taught in school the syllabic symbols and all the Chinese characters that are usually required in adult life. As a rule, the *hira-gana* symbols are taught along with some of the Chinese characters. The 881 Chinese characters are taught at elementary school, and the number is increased to 1,850 at high school.

In the early stages of elementary education the teaching of reading starts with words and gradually includes sentences. The value of this procedure is now being questioned. Some argue that the traditional method of memorizing the Chinese characters one by one and of writing them should be revived. They point out that Chinese characters are composed of varying numbers of strokes arranged in patterns which differ in complexity. They maintain, therefore, that the best way to teach the characters is to analyse them into their constituent elements and to practise writing them stroke by stroke. Those who oppose this plan point out that Chinese characters represent ideas and form parts of sentences and that the methods used should be those which are most effective in developing habits of reading for meaning and of conveying ideas through writing.

At the adult level, as there is scarcely no illiteracy in Japan, very little provision for teaching totally illiterate adults to read and write is needed. However, for those with limited reading ability the phonetic symbols are being printed beside or above the Chinese characters. This has proved very helpful. Adults are also encouraged to make use of libraries and of the various courses offered for their benefit.

Only a few of the problems have been considered. The examples given show that the use of a wide variety of procedures is necessary because of the two types of character, each of which presents different kinds of learning problems. The difficulties are so numerous that many unsuccessful attempts have been made to adapt other alphabets, including the Latin, to the Japanese language. Although linguistic factors exert a strong influence on the nature of the specific methods used in teaching reading and writing, many of the problems are the result of historical and social factors influencing Japanese life.

LETTER-SOUND CHARACTERS

A distinguishing feature of all alphabetic languages is that their basic sounds, or phonemes, are represented, as a rule, by different letters or marks. They enable the reader to recognize more or less quickly the pronunciation of the words in a passage. After he has mastered a small number of letters, usually less than 40, a reader has access to all the literary resources of a language. In the judgment of linguists, letter-sound characters provide 'the most highly developed, the most convenient and the most easily adaptable system of writing'[1] that exists today. Because of its many advantages, its use has spread to all parts of the world. In practically all recent efforts to promote literacy among people who had no writing system, letter-sound symbols have been used to give the language written form.

Although all alphabetic languages are similar in that they use letter-sound characters in writing, they differ in many significant respects. As shown by the examples on the chart between pages 40 and 41, the forms of letters differ radically. Because of their simplicity and the ease with which they can be written and read,[2] Latin characters are used more widely than any others.

Moreover, the number and character of distinctive sounds of a language vary widely.[3] Those which are very important in some languages may have little or no significance in others. As a result, the number of letters in the various alphabets differs considerably. The languages of Polynesia—extending from Hawaii to New Zealand—have relatively short alphabets.[4] Some have as few as 12 sounds, including five vowels (*a, e, i, o, u*) and seven consonants (*m, n, k, l, p, r, t*). Many of the native languages of the Philippines, Indonesia, and the Malay Peninsula, make use of from 16 to 20 letters. Other languages have longer alphabets. Thailand, for example, has 46 letters, including 18 primary vowel sounds, 21 separate consonant sounds, and other components and combinations. Literacy experts agree that it is much easier, other things being equal, to teach children and adults to read and write when the language has a small alphabet. Before referring to other differences in alphabetic languages, attention is directed to certain problems common to all who attempt to teach reading and writing in these languages.

Particular Teaching Problems

The particular problems related to the teaching of reading and writing in the alphabetic languages arise from the fact that the characters represent phonemes or basic sounds. A few examples will show how largely the use of letter-sound characters has influenced teaching methods.

The ancient Greeks believed that letters should be mastered before words. According to Dionysius, 'We first learn the names of the letters, then their form and length, their syllables and their usual variations. Then we begin to read and write, but syllable by syllable, until we have acquired some facility, then connectedly as we choose.... As time goes on, we read any book at sight, without reference to the rules.'[5] In principle, this procedure, which is known as the letter or alphabetic method of teaching reading, persisted for two thousand years or more.

1. Diringer, op. cit., p. 37.
2. Institut international de la cooperation intellectuelle. *L'Adoption universelle des caractères latins*. Paris, 1936, 196 p. (*Dossiers de la cooperation intellectuelle.*)
3. Bloomfield, Leonard. *Language*. New York, Henry Holt & Company, 1933, pp. 79-83.
4. Laubach, Frank C. *Teaching the World to Read: A Handbook for Literacy Campaigns*. London, Lutterworth Press, 1948, p. 54.
5. Dionysius of Halicarnassus. *De admirandi vi discendi in Demosthene*. Ed. H. Usener and L. Radermacher. Leipzig, Tuegerg, 1899, Tome I, Chapt. 52, p. 242.

Educationists in countries using alphabetic languages began to advocate that the teaching of reading should begin with the mastery of the sounds of letters, rather than their names, since the former were of chief importance in learning to pronounce words. Accordingly, phonetic methods of teaching reading were developed. The basic sounds of letters were learned first, then syllables and words. As soon as some skill had been acquired in recognizing new words, sentences were read, and in time, longer passages. The many changes that have been made in the techniques of teaching reading will be reviewed in Chapter V. Each of them was designed to develop a higher degree of skill in recognizing words through a knowledge of the sounds of the letters. This is in sharp contrast of course to the see-and-say method used in teaching word-concept characters, and differs in certain respects from the methods used in teaching syllabic-sound characters.

Within recent times, the wisdom of concentrating on the sounds of letters during the early stages has been challenged. Opponents of the method contend that since reading is a thought-getting process, attention should be directed at the outset to the meaning of what is read. In harmony with this assumption, 'word', "sentence' or 'story' methods have been developed for the first reading lessons. As soon as a small basic vocabulary has been learned, known words are broken up into syllables and letters, and appropriate sounds are attached to them. Thus the 'graphical-sound' correspondence in all alphabetic languages has played a prominent role in determining the features of the methods used in teaching children and adults to read and write.

Variations in Teaching Method within the Alphabetic Group

The methods used in teaching reading differ in some respects owing to significant linguistic differences among the alphabetic languages. The extent of letter-sound correspondence varies considerably. This is strikingly illustrated in a comparison of the Spanish and Korean languages, in which there is a high degree of correspondence between letter and sound, with the English and French. In each of the latter the same sound may be represented by different letters, some letters may have two or more sounds or indeed none at all in specific words, and variations in the sounds of given letters are often indicated by supplementary or diacritical marks in particular words. As the degree of the graphic-sound correspondence decreases, learning to recognize words becomes increasingly complex. The rules governing the pronunciation of words and their exceptions must be carefully studied and additional clues to word recognition must be found. It follows that many of the detailed procedures used in teaching children or adults to read different alphabet languages will vary with the extent of correspondence between signs and symbols.[1]

A second difference relates to the fact that some alphabetic languages are more syllabic than others. Spanish, Portuguese and many native African languages are of the syllabic type. The Spanish word *mano*, for example, is made up of two syllabic units, *ma* and *no*. Such units can be learned readily as wholes, because most of them when presented separately form familiar words with which clear, vivid meanings have already been associated. As soon as given syllables have been learned, they can be combined into words whose pronunciations and meanings can be recognized at once because they are made up of familiar units. They can also be used in recognizing new words. Obviously the necessary knowledge and skills, and the teaching techniques used to impart them, differ significantly from those required in languages

1. Hernández Ruis, Santiago and Tirado Benedí, Domingo. *La ciencia de la educación.* 2a edición. México, Editorial Atlante, S.A., 1949, p. 462.

in which the phonetic elements are learned and applied separately. There is wide agreement among authorities that teachers should, wherever possible, make effective use of syllabic units.[1]

A third difference is due to the way in which vowel sounds are represented. Gelb[2] distinguishes three types. In Type I, the vowels are indicated by separate signs—*a, e, i, o, u*—as in English and Latin. In Type II, the vowels are indicated by special marks; for example, in Arabic تَ is *ta*, تِ is *te*, and تُ is *tu*. In Type III, the vowels are indicated by other marks attached to a letter or by internal modifications of it, as in the Indic and Ethiopic languages. In some languages, the variations involved in Types II and III are introduced in early instruction in reading and their use is continued thereafter. In others, they are introduced at the beginning, but discontinued later. As a result of these variations, different problems arise, which call for the use of appropriate teaching procedures.

Alphabetic languages also differ considerably in word order. Whereas the usual order of the principal elements of a sentence in many languages is subject, verb and object, or complement, this is by no means so in all. In German, for example, the verb usually follows the object or complement. Again, in some languages, adjectives precede the word which they qualify, as in English; in others, they usually follow, as in French and Spanish. The extent to which such differences create teaching problems has been an open question. If the word order in the written language is similar to that used in speech, it may be argued that written or printed material can be interpreted with equal ease by members of the different language groups. As the sentence structure of the passages read varies and become more complex than that with which the reader is familiar, difficulties will be encountered in any language.

Many alphabetic languages are highly inflected, while others are not. By an inflected language is meant one which 'indicates grammatical relations by means of endings or "suffixes" which are added on to the "roots" of words'. This was particularly true of the original Semitic and of the Indo-European languages, in which inflected forms of both nouns and verbs are used for various purposes. Latin is a good illustration of a highly inflected language. Most modern languages have undergone some simplification. The Romance languages, for example, 'have simplified their structure' with regard to nouns, but practically not at all with regard to verbs. Judgments differ as to the extent to which such variations affect difficulty in learning to read.

In most languages words are written as separate units, for example, 'a boy hit the ball', but in some, such as Thai, the words are run together in this manner: 'aboyhittheball'. Obviously, the problem of identifying words is different. Then again, languages differ morphologically, that is, in the construction of words and parts of words. At one extreme there are completely analytic languages in which 'each word is a one-syllable morpheme or a compound word or phrase-word; at the other, highly synthetic languages like Eskimo, which combines long strings of bound forms into a single word, such as *a:wlisa-ut-issar-si-niarpu-ja* (I am looking for something suitable for a fish-line)'.[3] Much careful study is needed 'before rules for joining and adjoining the elements of sentences can be evolved'.[4] Obviously, what is a word in one language may not be a word in another.

1. Wallis, Ethel E. 'Using Linguistic Analyses in Literacy Methods in Mexico', *Fundamental and Adult Education*, Vol. VI, No. 4, pp. 16-17. Paris, Unesco, 1952.
2. Gelb, op. cit., pp. 197-8.
3. Bloomfield, op. cit., p. 207.
4. Barrera Vásquez, Alfredo. *Vernacular Languages in Education*. Chapter II. (Unpublished manuscript on file in Unesco Education Clearing House.)

Finally, some alphabetic languages, such as Yoruba, which is spoken in Nigeria, are tonal. The appropriate tone is indicated by marks which differ in type in the different tonal languages. These marks are usually taught in early reading lessons and are often omitted later. If they are not taught, the reader must first make a careful study of the meaning of a passage before he can give the appropriate tone values in oral reading. It follows that teaching people to read tonal languages sets special problems. The same holds for languages which use stress.

Summing up, all alphabetic languages make use of letter-sound characters in writing, but they vary radically in both form and structure. Only a few examples of these variations have been presented. For a more complete and detailed description of them, the reader is referred to such specialists as Bloomfield, Bodmer, Diringer, Gelb, Preston and Sapir.[1] The examples given, however, explain some of the differences in teaching procedure. We may conclude, therefore, that, in planning reading and writing programmes, a careful study should be made of the unique linguistic characteristics of the language to be used.

1. Bloomfield, op. cit.; Bodmer, op. cit.; Diringer, op. cit.; Gelb, op. cit.; Sapir, op. cit.; Preston, Ralph C., 'Comparison of Word-recognition Skill in German and in American Children', *Elementary School Journal*, LIII (April 1953), pp. 443-6.

CHAPTER III

NATURE OF THE READING PROCESS IN VARIOUS LANGUAGES

The preceding discussions of social and linguistic factors make clear the diverse nature of the problems encountered in promoting world literacy. If our search for guiding principles were to stop at this point, we might conclude that literacy problems must be solved more or less independently in regions using different languages. Before doing so, however, we should consider with equal care related psychological factors. Accordingly, this chapter deals with the basic processes of reading in different languages, and the extent to which they resemble one another. If they are found to be similar, an effort will be made to ascertain the attitudes and skills required in reading all languages.

SOURCES OF INFORMATION

Because of their very nature, the mental processes involved in reading are difficult to describe. After reviewing the evidence available, it seemed advisable to start with the basic facts revealed by photographic records of eye movements. Previous research has shown that eye-movement records are a very illuminating source of information as to the first steps in reading and the way in which words are recognized and meanings acquired. Furthermore, evidence was already available for several languages, and could be obtained for additional ones.

In the discussion that follows, use will be made of the results of four groups of studies: the pioneer studies of reading made in France and Germany during the latter half of the nineteenth century; extended eye-movement studies of reading made in the United States since 1900; similar studies made of the reading of the Chinese, Japanese and Spanish languages since 1920; and studies of reading in fourteen languages, made specifically for the purposes of this report. The languages studied employ the three distinctive types of characters used in writing throughout the world today. They also include widely diverse types of alphabetic languages. As a result, they may be assumed to be fairly representative.

PIONEER STUDIES OF READING IN FRANCE AND GERMANY

Present day knowledge of the psychological processes of reading is based on studies made in France and Germany during the latter half of the nineteenth century.

The early studies of Javal,[1] Lamare,[2] and Landolt,[3] in France, and of Ahrens,[4] Erdmann and Dodge,[5] and Goldscheider and Müller,[6] in Germany, soon attracted wide attention and led to related studies by other investigators.

BEHAVIOUR OF THE EYES IN READING

Certain facts relating to the behaviour of the eyes in reading have been ascertained by observation and the use of various devices.

1. The eyes move from left to right along the line, by short, quick movements and pauses, followed by a rapid return sweep from the end of one line to the beginning of the next. It was demonstrated that the eyes do not move continuously along the line, as had formerly been assumed.
2. The eyes pause, as a rule, from 4 to 10 times along a line of ordinary length. The first pause is a short distance from the beginning of the line, and the last pause somewhat farther from the end of the line.
3. Individuals vary widely in the number of pauses made in reading specific passages and, as a result, in their speed of reading. The amount read in a given period by some persons is as much as five or more times that read by others.
4. The number of pauses made by the same reader varies widely according to familiarity with the materials, their difficulty and interest.
5. A mature reader makes a relatively small number of pauses per line when reading simple material and proceeds line after line in about the same number. With difficult passages, the number of pauses per line may be much greater.

HOW WORDS ARE PERCEIVED

The foregoing findings challenged the validity of a widely accepted view, namely, that reading proceeds by letters. Through the use of a short exposure apparatus, letters, words and sentences were exposed for very brief periods, such as one-tenth or one-fiftieth of a second and it was found that:

1. Four or five unrelated letters, or words consisting of from four to five times that number of letters, could be recognized at a single short exposure.
2. Increasingly large amounts were recognized at each exposure, the materials used consisting of unrelated letters, unfamiliar words, familiar words, short sentences, or proverbs. This finding implies that the amount perceived at each exposure depends in part on the extent to which the material presented has meaning or 'makes sense' to the reader.
3. The more unfamiliar a sequence of letters, the more perception proceeded by letters. As the words read became increasingly familiar, fewer and fewer clues

1. Javal, Dr. Emile. 'Sur la physiologie de la lecture', *Annales d'oculistique*, 1878 et 1879. (Several articles.)
2. Lamare, Dr. 'Des mouvements des yeux pendant la lecture', *Comptes rendus de la Société Française d'Ophthalmologie*, 1893.
3. Landolt, Dr. Edmond. 'Nouvelles recherches sur la physiologie des mouvements des yeux', *Archives d'ophthalmologie*, II, 1891, pp. 385-95.
4. Ahrens. *Die Bewegung der Augen beim Schreiben.* Rostock, 1891.
5. Erdmann, Benno and Dodge, Raymond. *Psychologische Untersuchungen über das Lesen auf experimenteller Grundlage.* Halle, a.S., M. Niemeyer, 1898, 360 p.
6. Goldscheider, A. and Müller, R. F. 'Zur Physiologie und Pathologie des Lesens', *Zeitschrift für klinische Medizin*, Bd. XXIII, p. 131.

were needed to ensure their recognition. As a result, it was concluded that reading was now by words or phrases, now by groups of letters, and now by individual letters, according to familiarity with the material, its difficulty, and the skill or efficiency of the reader.

4. In the recognition of new words, certain letters or groups of letters were perceived more quickly than others—letters which have distinctive shapes or which extend above or below the line. These attracted attention and provided clues to the recognition of the word as a whole. If the reader had his mind on the meaning of the passage, the recognition of a few elements of a word within his spoken vocabulary was all that was needed to suggest it.

A NEW CONCEPT OF READING

These findings not only invalidated the earlier views, namely, that reading proceeds by letters and that the eyes move continuously along the lines; they led to the development of a new concept of reading. The good reader is intent on the meaning of what is read, at each pause he recognizes words, or groups of words, as wholes —that is, by their general form and striking features—and he proceeds as rapidly along the lines as he can grasp their meaning. When he meets new and unfamiliar words, however, he must attend to their details. As he becomes more and more familiar with such words, fewer and fewer clues are needed to ensure the recognition of both their pronunciation and meaning.

This new concept of reading was so challenging that it stimulated research into the ways in which different languages were read. It also cast doubt on the validity of teaching methods which focused attention on skill in word recognition.

STUDIES OF THE READING OF ENGLISH

Detailed studies of the reading of English began in about 1900. Building upon the notable work that had been done in France and Germany, psychologists devised improved methods of photographing eye movements.[1] Interest centred at first on the general nature of reading.[2]

As these studies progressed, attention was directed to differences between good and poor readers and between oral and silent reading; [3] to the development of

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1. Through the use of specially built cameras, a beam of light was photographed which came from either a nitrogen or an electric bulb. This beam of light was reflected first to the cornea of the eye from silvered glass mirrors, and then from the cornea through a camera lens to a moving film. As the eyes moved, the position of the beam of light was broken by an electrically driven tuning fork, which vibrated at a fixed rate—usually 25, 30 or 50 times per second. As a result, a dotted line was shown on the developed film (see Plates II to VI inclusive). It was thus possible to secure records showing the position and duration of the eye pauses, or fixations. Through the use of this general technique, supplemented by the use of short-exposure devices, studies were made of many kinds of problems.
2. Dearborn, Walter Fenno. *The Psychology of Reading;* an experimental study of the reading pauses and movements of the eye. New York, The Science Press, 1906, 134 p. (*Columbia University Contributions to Philosophy and Psychology,* Vol. XIV, No. 1.)
   Huey, Edmund Burke. *The Psychology and Pedagogy of Reading.* New York, The Macmillan Co., 1912, 469 p.
3. Schmidt, William Anton. *An Experimental Study in the Psychology of Reading.* Chicago, University of Chicago Press, 1917, 126 p. (*Supplementary Educational Monographs,* Vol. I, No. 2.)

basic habits of recognition from early childhood to adulthood;[1] and to the effect on reading of differences in the kinds of material read, their difficulty, and the reason for reading.[2]

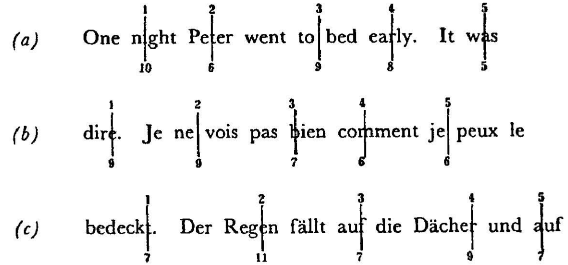

Figure 1. Examples of eye-movement records in three languages: (a) a college student in the United States[3]; (b) an efficient reader of French;[4] (c) a native German reader.[5] In this and the following figure, the vertical lines represent centres of fixations. The numbers above the lines indicate the serial order of fixations; those below indicate duration in thirtieths of a second.

CHARACTERISTICS OF MATURE READERS

We shall examine first how adults read simple passages silently, as revealed by eye-movement records. For purposes of comparison, Figure 1 presents typical records of the reading of English, French and German. The vertical lines represent the pauses, or fixations, made in reading. They cross the lines of print at the points where the eyes were focused at the various fixations. The numbers at the top of the vertical lines show the order in which the fixations were made; those at the bottom indicate the length of the fixations, or pauses, in thirtieths of a second.

The examples in Figure 1 show that each of the three readers made five fixations per line, with no regressive, or backward, movements. The records for other lines

1. Gray, Clarence Truman. *Types of Reading Ability as Exhibited through Tests and Laboratory Experiments.* Chicago, University of Chicago Press, 1917, 196 p. (*Supplementary Educational Monographs*, Vol. I, No. 5.)
   Buswell, Guy Thomas. *Fundamental Reading Habits; a Study of their Development.* Chicago, University of Chicago Press, 1922, 150 p. (*Supplementary Educational Monographs*, No. 21.)
2. Judd, Charles Hubbard and Buswell, Guy Thomas. *Silent Reading: A Study of the Various Types.* Chicago, University of Chicago Press, 1922, 160 p. (*Supplementary Educational Monographs*, No. 23.)
3. Buswell, Guy Thomas. *Fundamental Reading Habits: A Study of their Development*, op. cit., p. 3.
4. Buswell, Guy Thomas. *A Laboratory Study of the Reading of Modern Foreign Languages.* New York, The Macmillan Co., 1927, p. 23. (*Publications of the American and Canadian Committees on Modern Languages*, 2).
5. Buswell, Guy Thomas, ibid., p. 83.

which they read showed that the number of fixations per line varied from four to six and that occasional regressions occurred. In general, however, each reader recognized at least one word quickly at each fixation and proceeded regularly along the lines as rapidly as he could grasp their meaning. Obviously words were recognized instantly by their general form or distinctive features rather than by specific recognition of each letter. The reader was thus able to attend to the meanings of the various words and to fuse them into the ideas represented by the sentences and longer units read.

Further study of records of mature readers shows that they often depart, for several reasons, from the pattern just described. If, for example, an unfamiliar word appears in the text, a good reader may fixate it several times, as he searches for clues to its recognition. Similarly, the effort to secure a clear grasp of meaning may result in re-reading of words and phrases for clues. Moreover, a good reader often re-reads a sentence or paragraph in order to grasp its meaning more fully or to verify his first impression.

The evidence now at hand justifies the conclusion that mature readers of French, German and English follow essentially the same procedure in the silent reading of simple material. They recognize words and groups of words at each fixation of the eyes and proceed as rapidly as they can grasp the meaning of what is read. As the material increases in difficulty, more detailed attention is paid to individual words. The mature reader overcomes the difficulties he meets in reading in an orderly and efficient manner.

DIFFERENCES AMONG ADULTS IN SILENT READING

Unfortunately, all adults who have been taught to read do not acquire equal efficient habits. Striking evidence of this was obtained by Buswell,[1] who arranged the silent reading records of eight adults in order from best to poorest.

Those presented in Figure 2 are the first, fifth and eighth in the series. The first record is that of a very efficient reader. It shows that he recognized two or more words at each fixation and that his eyes moved regularly from left to right along the lines. As they did so, the meanings of the words recognized were fused into the idea or ideas represented by the sentence. Such a reader is able to make wide use of reading to meet practical needs, and also for pleasure.

The second line shows the record of a less mature reader, whose eyes made frequent fixations. However, there was only one regressive, or backward, movement of the eyes. This procedure in reading may be described as slow and careful. Apparently, the words had not been mastered well enough to be recognized instantly in units of two or three. A reader of this type can comprehend simple material fairly well—though he is not able to compete with superior readers in speed—and he encounters many difficulties with more complex material. He needs much practice before he can read fluently, easily and with satisfaction.

The third line is that of a very poor reader. It shows that he made many fixations per line, focused on each word from one to three times and moved irregularly back and forth along the line in search of clues to pronunciation and meaning. The first fixation was too far from the beginning of the line to permit him to recognize the first word—hence the backward movement to the second fixation. His performance from that point on shows that he was encountering much difficulty.

1. Buswell, Guy Thomas. *How Adults Read.* Chicago, The University of Chicago Press, 1937, p. 55. (*Supplementary Educational Monographs*, No. 45.)

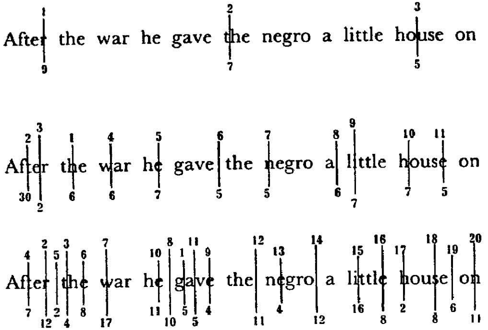

Fig. 2. Silent reading of three adults.

This is often due to lack of systematic training in reading, inadequate emphasis on the skills of word recognition, or failure to develop a thoughtful reading attitude. Whatever the cause, this adult is poorly prepared to use reading as an aid in meeting the demands of everyday life or in attaining the goals of fundamental education.

There is abundant evidence that the foregoing conclusions apply also to the reading of French and German.

DIFFERENCES BETWEEN ORAL AND SILENT READING

The early studies made in France and Germany showed that many adults read much more rapidly silently than aloud. By 1900, this discovery had attracted wide attention. As a result, many subsequent studies were concerned with the different processes involved and the relative efficiency of oral and silent reading. Huey, for example, who measured the oral and silent reading rates of English by university students, found that their average rate 'when reading silently was 5.63 words per second at their ordinary speed and 8.21 at their maximal'; and when reading aloud, was, '3.55 words per second at their ordinary speed and 4.58 at their maximal'.[1]

According to Huey, efficient readers proceed from one and a half to two times as fast silent as they do orally. When the scores of individuals were examined, it was found that many adults read three, four, or even seven times, as fast silently as orally. Similar differences have been reported by other investigators. It follows that silent reading is far more time-saving than oral reading: whereas in oral reading one can proceed only as rapidly as one can pronounce the words, in silent reading one can read as rapidly as one can grasp their meaning.

1. Huey, op. cit., p. 175.

As this fact was recognized, questions arose as to the relative efficiency of oral and silent reading in grasping meaning. In an early study by Piutner and Gilliland,[1] tests of both silent and oral readings were given to pupils in grades II to XII inclusive and to college students. Each of the paragraphs included in both types of test contained 'about fifty words and seven distinct ideas'. Results showed little variation in the number of ideas reproduced after reading orally and silently. Later studies have shown that, in general, silent reading is accompanied by somewhat better comprehension. It should be pointed out, however, that many poor readers tend to comprehend slightly better when reading orally, whereas most good readers tend to comprehend much better when reading silently.

PROGRESS IN LEARNING TO READ

It would appear that the training of efficient readers is by no means an easy task. Nevertheless, notable progress can be made during early school years in developing the basic skills required for good oral and silent reading. This statement is supported by the results of many studies[2] of children's progress in learning to read, which may be summarized as follows:

1. Ability to grasp the meaning of simple passages develops rapidly during the first year in school and may reach a high level of efficiency by the end of the third year.
2. Ability to understand more difficult passages and to read efficiently for different purposes continues to increase rapidly throughout the elementary and secondary school years.
3. The rate and accuracy of oral reading increase rapidly during the first three years at school, and steadily, but much more slowly, thereafter.
4. The rate of silent reading is the same as that of oral reading during the first two years, exceeds it as a rule in the third year, and becomes much greater later on.
5. Progress in the amount recognized at each fixation of the eyes is rapid during the first four years, and steady, but much less rapid, in subsequent years.

Whereas all children pass through these stages, they differ in the time required to do so and in their rate of progress at each age or grade level, as a result of differences in the capacity to learn, the background of experience, interest in reading, and the extent to which stimulus and guidance are provided by school, home and general environment.

By the time they have been in school for four years, most pupils have acquired the basic skills necessary for reading simple material both orally and silently and have learned to read stories and simple selections of a general character. They are also able to read for enjoyment, information or in order to find answers to specific questions. A broad foundation has thus been laid for learning to read many other types of material, of increasing difficulty and for various purposes.

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1. Piutner, Rudolf and Gilliland, A. R. 'Oral and Silent Reading', *Journal of Educational Psychology*, Vol. VII., April 1916, pp. 201-12.
2. Gray, William S. 'Reading', *Child Development and the Curriculum*. National Society for the Study of Education, Thirty-eighth Yearbook, Part I, Chapter IX. Bloomington, Ill., Public School Publishing Co., 1939.

SUMMARY STATEMENT

It has been demonstrated that the basic processes of silent reading are essentially the same in English, French and German. Individuals differ widely in the efficiency with which they read. Silent reading is much quicker than oral reading and makes possible an equal, if not better, grasp of meaning. Although reading processes are many and complex, children make rapid progress during their first years at school. Although they pass through the same stages, they advance at very different rates. Nevertheless, most of them are able, by the end of four or five years of schooling, to read simple material, either orally or silently, with considerable efficiency. If properly stimulated and guided, they increase in ability to read throughout the elementary and secondary school years.

STUDIES OF THE READING OF CHINESE, JAPANESE AND SPANISH

During the last 30 years studies of eye movements in reading have also been made for Chinese, Japanese and Spanish. The chief findings will be summarized separately.

THE READING OF CHINESE

Studies relating to the reading of Chinese have been fairly numerous and detailed. Many of the early studies were designed to compare Chinese with other languages. They showed conclusively[1] that in spite of the notable difference in the characters used, the basic processes are essentially the same as in reading French, German and English. Each line, whether vertical or horizontal, was followed by the eyes in a series of pauses and movements, more than one character being read, as a rule, at each pause. However, certain differences were noted. The number of characters recognized at each pause, and hence the speed of reading, was greater in Chinese than in the other languages. This was explained by the fact that Chinese characters are more compact than French, German or English words. There were also more pauses per line—partly owing to the greater compactness of Chinese characters. Whereas in the other languages, long words might be recognized at one fixation, the Chinese characters occupying the same amount of space might not all be clearly perceived at once.

Vertical reading was found to be faster than horizontal reading by all investigators. Many of them tried to discover why. Shen,[2] for example, studied the possible influence of the following factors: the relative position of the two eyes; the manner in which the eyes open; the greater freedom and extent of movement and the wider area of clear vision in the horizontal axis; the constant readjustment in the convergence and relative accommodation of the eyes in horizontal reading; the influence of the muscular mechanism of the eyes; and the structure of the Chinese characters. Some of these factors appeared to favour vertical reading, and

1. Miles, W. R. and Shen, Eugene. 'Photographic Recording of Eye Movements in the Reading of Chinese in Vertical and Horizontal Axes: Methods and Preliminary Results', *Journal of Experimental Psychology*, Vol. VIII, October 1925, pp. 344-62.
   Chen, L. K. and Carr, H. A. 'The Ability of Chinese Students to Read in Vertical and Horizontal Directions', *Journal of Experimental Psychology*, Vol. IX, April 1926. pp. 110-17.
2. Shen, Eugene. 'An Analysis of Eye Movements in the Reading of Chinese', *Journal of Experimental Psychology*, Vol. X, April 1927, pp. 158-83.

others, horizontal. However, the general conclusion reached by Shen and others[1] was that the superiority of vertical reading is due very largely, if not wholly, to training and habit.

Chinese adults, too, differ widely in their efficiency in silent reading. Hu,[2] for example, studied 51 adults, who varied in rate from 2.8 to 20.7 words per second —the most rapid reading ten times as fast as the slowest. Hu[3] also found that Chinese students read faster silently than orally. They read fiction, orally and silently, at an average rate of 3.7 and 5 words per second respectively. The corresponding averages for prose were 3.7 and 4.2, and for poetry, 2.9 and 3.4 respectively. Comparing these records with those for the reading of English, he found them to be 'remarkably similar'.

Hu was greatly impressed with this discovery, because most of his subjects had been trained only in oral reading and had acquired habits of silent reading largely as a result of the heavy reading demands made upon them in their academic life. The data seemed to show that efficient readers of Chinese, as of other languages, learn sooner or later to recognize words as units, often in groups of two or three, give up vocalizing each word, and proceed as rapidly along the lines as they can grasp the meaning. Hu made a plea for specific training in silent reading, and emphasized the urgent need of early establishing efficient habits in those who do not go beyond the primary grades.

Much information has been obtained also concerning the progress of Chinese children in learning to read. Ai,[4] for example, comparing pupils from the lower second to the upper sixth grades in rates of oral and silent reading, discovered that the rates of oral and silent reading were practically the same in the third grade, but began to differ in the fourth grade. For the fifth and sixth grades, the superiority of the silent over the oral reading rate was about one word per second. Ai concluded that although Chinese differs radically in form and structure from English, progress in the development of speed in oral and silent reading follows the same pattern in both languages.

A detailed study[5] of vernacular and literary Chinese revealed that the former was read much more fluently than the latter. This finding justifies the current practice of using the vernacular in reading material designed for mass education and popular consumption.

THE READING OF JAPANESE

Studies of the reading of Japanese have also been made, but the results of only

1. Chou, Siegen K. 'Reading and Legibility of Chinese Characters', *Journal of Experimental Psychology*, Vol. XII, April 1929, pp. 156-77.
   Chang, Chung-Yuan. *A Study of the Relative Merits of the Vertical and Horizontal Lines in Reading Chinese Print.* New York City, Columbia University, 1942. (*Archives of Psychology*, No. 276.)
   Chen and Carr, op. cit.
2. Hu, I. *A Study of Perceptual Span in Reading the Chinese Language.* Master of Arts Dissertation, Department of Education, University of Chicago, 1926.
3. Hu, I. *An Experimental Study of the Reading Habits of Chinese.* Doctor's Dissertation, Department of Education, The University of Chicago, 1928.
4. Ai, J. W. 'A Report on Psychological Studies of the Chinese Language in the past Three Decades', *Journal of Genetic Psychology*, Vol. LXXVI, June 1950, pp. 207-20.
5. Wang, Fung Chiai. 'An Experimental Study of Eye Movements in the Silent Reading of Chinese', *Elementary School Journal*, Vol. XXXV, March 1935, pp. 527-39.

three were available.[1] The most pertinent findings may be summarized as follows:

1. The basic processes were practically the same as for Chinese and English. However, there were more fixations per line, which the investigators thought was due to the complex character of the Japanese written language.
2. As with Chinese, vertical reading was more rapid than horizontal reading. This fact was explained chiefly in terms of habit and training.
3. As with all languages, silent reading was much faster than oral reading. It was very significant that notwithstanding the complex character of the Japanese language, mature readers were able to recognize a relatively large unit at each fixation of the eyes and to read faster silently than orally.
4. Striking individual differences were found among adults in the efficiency of silent reading.

THE READING OF SPANISH

A study [2] of eye movements in the reading of Spanish was made by members of the Institute of Physiology of the Department of Medical Sciences at Buenos Aires by means of a Grass Electro-Encephalograph. It was found that for children:

1. The unit of recognition in reading is a word or group of words. (This type of reading was far more rapid and less laborious than that based on the recognition of letters or syllables.)
2. As a result of specific training, the reading rate was greatly increased, and there was a corresponding increase in the amount recognized at each fixation of the eyes.
3. Difficult material was read more slowly.

The investigators concluded that 'the natural form of reading is not by spelling or syllabizing, but on the basis of whole groups of words'. This fact, they pointed out, provides 'the physiological basis of the modern methodology of reading'.

SUMMARY STATEMENT

Evidence has been given concerning six languages—French, German, English, Chinese, Japanese and Spanish. Although these languages differ radically, the records show that the basic steps or processes of reading them are essentially the same. It would therefore appear that all mature readers have acquired the same habits; they read faster silently than aloud, and there are great individual variations in the speed of silent reading. A Chinese investigator explained these facts in the following way: 'The size of a word, length of line, and difference in language structure may present numerous differences; but the habits of a mature reader are determined by the words and the meanings they carry. A word to the mature reader has

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1. Atomo, Shigeru. *An Experimental Study of the Eye Movements made by Various Persons in the Reading of Japanese Texts of Different Forms.* Doctor's Dissertation, Department of Education, University of Chicago, 1924.
   Takamine, H. 'On the Development of Visual Perception and its Relation to Japanese Syllabaries', *Japanese Journal of Applied Psychology*, 2, 1933, pp. 215-228. (An abstract in English, *Psychological Abstracts*, No. 2946, 1934.)
   Yamamoto, Sango. 'An Experiment on Eye Movements in the Reading of the Japanese Language', *Japanese Journal of Psychology*, Vol. X, December 1935, pp. 773-89. (An abstract in English, pp. 69-70.)
2. Muñoz, J. M., Odoriz, J. B. and Tavazza, J. 'Registro de los movimientos oculares durante la lectura', *Revista de la Sociedad Argentina de Biología*, XX, Abril de 1944, pp. 280-6.

significance only in proportion to its relation to the individual's experience and not on account of its physical or linguistic qualities....' A word in Chinese and a word in English may have very different origin, development and structure, but both of them have come to occupy about the same place through social usage as the most influential determining factor of the habits of reading.[1]

A STUDY OF READING IN FOURTEEN LANGUAGES

Before accepting these conclusions, it seemed advisable to check their validity. Firstly, the evidence on which they were based was secured under widely different conditions. Hence the facts revealed are not comparable in many respects. Secondly, the alphabetic languages studied were limited to a few which use the Latin alphabet. Steps were taken, therefore, to obtain a wider range of data.

NATURE OF THE STUDY

The chief aim of this study was to compare, by means of eye movement records, the basic reading processes of mature readers in as many languages as possible. It was decided that the passages read should be in the reader's native tongue. Most, if not all, of his elementary schooling should have been in that language. He should also have continued to read in it regularly from that time on.

As the records needed could only be made with an eye-movement camera, the study was pursued in the reading laboratory of the University of Chicago. Suitable subjects were sought out in Chicago and in the colleges and universities of neighbouring States and 78 adults, varying in age from 20 to 50 were selected. Most of them were doing graduate work in universities.

Fourteen languages were represented—namely, Arabic, Burmese, Chinese, English, French, Hebrew, Hindi, Japanese, Korean, Navaho (native American Indian), Spanish, Thai, Urdu and Yoruba (native Nigerian). The number of adults for each language is indicated in Table 6. All but one had received college training—chiefly in their own countries. In order to have at least one underdeveloped area represented, Navaho Indian subjects were sought. There are very few literate Indians around Chicago. One of those finally selected had learned to read Navaho by himself as a boy and had read considerably in that language during his youth. In the course of time, he received elementary, high school and college education in English. The other had been helped by a missionary to learn to read Navaho, but had had little formal education. Because of the wide training of most of the adults tested, they quickly grasped the purpose of the study and co-operated well.

The content of the passages was the same for all subjects, excepting the Navaho Indians, for whom special passages were prepared, based on experiences common to Indian life. This plan was adopted to ensure that differences in the eye-movement records would not be due to variations in the content of the materials read. Four passages were used in testing each subject—two for oral reading and two for silent reading. A fable from Aesop was chosen for one of the two passages in each set. The other was a simple discussion of the reasons why children or adults should learn to read and write. When these passages were translated, steps were taken to ensure that they would be of equal difficulty. Table 3 shows the average number of words per passage, the number of sentences in each, the average number of

1. Hu, I., *An Experimental Study of the Reading Habits of Adult Chinese*, op. cit., p. 135.

words per sentence, the number of words in each passage included in the first eight levels of the Thorndike Word List, and the number of polysyllabic words.

TABLE 3. Analysis of the test passages

Passage	No. of words	No. of sentences	Av. No. of words per sentence	No. of words in Thorndike Word List								No. of polysyllabic words
				First 500	Second 500	Second 1,000	Third 1,000	Fourth 1,000	Fifth 1,000	Sixth 1,000	Seventh 1,000	
1	166	12	13.9	122	19	4	6	—	3	—	2	21
2	166	12	13.9	149	7	3	3	2	—	2	—	28
3	146	10	14.6	125	9	3	3	1	5	—	3	40
4	146	10	14.6	123	11	4	3	3	2	—	—	41

An analysis of the entries in the table shows that the first two passages, which were fables, were very similar in difficulty and were slightly easier than the other two passages. When printed in 11-point type in English, the two passages of each set occupied the same number of lines, those of the first set occupying 12 lines each, and those of the second, 13. The four passages, and accompanying sets of five questions to test comprehension, were translated into the different languages, keeping the same simple vocabulary and sentence structure.

No effort was made to reduce the translations to the same number of words or printed lines—which might have resulted in unusual forms of expression. The numbers of words and printed lines in each of the passages for the various languages are given in Table 4. The wide variation in the numbers of words and lines needed to express the same content is striking. It follows that the breadth of meaning attached to words, and the number of words printed in the same line, vary significantly from language to language. For this reason, great care must be observed in the interpretation of the data.

TABLE 4. Number of words and lines in the test passages for the various languages

Language read	Preliminary tests				Tests for eye-movement records			
	No. 1		No. 2		No. 3		No. 4	
	Words	Lines	Words	Lines	Words	Lines	Words	Lines
Arabic	134	11	134	10	168	13	137	11
Burmese	340	14	360	16	360	16	330	15
Chinese	259	11	240	11	233	10	191	9
English	166	13	166	14	146	13	146	13
French	163	13	166	14	163	15	153	14
Hebrew	102	9	110	9	109	10	110	10
Hindi	175	11	198	12	186	12	173	11
Japanese	108	11	102	11	121	11	94	10
Korean	153	16	151	15	144	14	139	13
Navaho	30	5	34	6	44	7	45	8
Spanish	149	13	151	12	143	13	159	14
Thai	220	12	196	13	183	12	177	13
Urdu	185	14	213	15	211	14	196	12
Yoruba	170	11	170	11	183	11	183	12

The same procedure was followed with all subjects. One passage of each set was read first to acquaint the reader with the testing procedure before the eye-movement records were taken. The directions follow: 'In a short time you will be asked to read this passage orally (showing the card on which it was printed). It is an old fable which you have doubtless read or heard. When I hand the card to you, read it aloud as you would if you were reading it to a group. As you read, give close attention to the meaning of the passage, because you will be asked questions about it later. Here is the passage. When I say, "begin", you will begin to read aloud. Are you ready? Begin!'

As each subject read, the time taken to read the passage was recorded in seconds. Immediately afterwards he was given the set of questions in his own language and asked to indicate which of the three answers accompanying each question was the correct one. The second fable was then read silently, following the procedure just described. As soon as the preliminary tests were completed, the second set of paragraphs was read, the only difference in procedure being that the eye movements were photographed as the passages were read. In order to eliminate the effect of practice from the results, the order in which the passages of each set were read was reversed for successive readers.

COMPARATIVE RATE AND COMPREHENSION SCORES IN ORAL AND SILENT READING

Table 5 presents the average scores made by the group as a whole in oral and silent reading. The rates of oral reading in the preliminary tests and in the eye-movement tests are essentially the same; likewise, the rates of silent reading. These comparisons are fairly valid owing to the general similarity in the numbers of words and printed lines for the two passages of each set. It may be concluded that the speed of silent reading was on the average much greater than the speed of oral reading. This was true also of the average for each of the language groups. Moreover, the difference between the average rates of oral and silent reading in the preliminary tests and in the eye-movement tests was essentially the same for each group. Although there were wide variations in the performance of individuals, exceptions to the foregoing statements were relatively few.

TABLE 5. Average scores in rate and comprehension in both oral and silent reading in the preliminary tests and in the eye-movement tests

	Preliminary tests		Eye-movement tests	
	Words per sec.	Comp. score	Words per sec.	Comp. score
Oral reading	2.7	70.9	2.8	78.9
Silent reading	4.4	71.6	4.3	77.9

The average comprehension scores in the two preliminary tests differed very little. The same holds for the eye-movement tests. The average comprehension scores of the different language groups corresponded much more closely than the rate scores. The comprehension scores were also significantly higher in the eye-movement tests than in the preliminary tests. Two factors contributed to this difference. Many of the subjects explained that they gave more attention to meaning in the second tests in order to make up for imagined deficiencies in comprehension in the preli-

minary tests. Of even greater significance is the fact that practically all of the subjects affirmed that the factual material in the second series of tests aroused greater interest than did the fables and called for a higher degree of concentration on meaning. These findings and explanations justify the assumption that the eye-movement records represent relatively thoughtful silent reading in each language.

COMPARISON OF THE SILENT READING RECORDS IN DIFFERENT LANGUAGES

The details will be presented in two ways: one record for each language group, usually one of the clearest, will be reproduced and its salient features described, with emphasis on the basic processes of reading; and a quantitative summary of all the facts will be given and commented on.

Plate II shows records from three alphabetic languages—Thai, French, and English. Since the film moves through the camera at a uniform rate, the various eye-movements of the three readers were made in the same length of time. The two parallel lines in each record represent the movements of the two eyes. The fact that they are closer together in some records than in others has no significance. The dots in each line show the number of thirtieths of a second required to read it.

To interpret the records, begin at the top of the French record in Plate II and follow the two parallel lines until they move sharply to the left. The extreme left point reached marks the beginning of the reading of a line. The record from that point on until it again moves sharply to the left shows the movements of the eyes in reading one line. The reader first focused his eyes on a point near the left end of the line, where they remained for eight-thirtieths of a second. His eyes then moved to the right where they focused again. This procedure was repeated three more times before he reached the end of the line. He then shifted his eyes to the beginning of the next line and repeated the process. His performance in reading three separate lines is shown on the record.

At times a regression to the left occurs in reading, e.g. in the first line of the English record. The first fixation undoubtedly occurred too far from the beginning of the line for the reader to be able to recognize clearly all of the first part of the line. A second regression occurs near the end of the second line of the same record. Such regressions are usually due to failure to recognize a word clearly at the preceding fixation or to grasp the meaning.

These three records are markedly similar, despite the fact that the sentences in the Thai passage were printed as single units with no spaces between words. Nor did differences in the shape of letters and their arrangements in words modify the basic processes in reading. The eyes invariably moved regularly from left to right along the lines, with an occasional regression. As a rule, one or more words were recognized at each fixation.

Plate III shows reading records for three other alphabetic languages, namely Spanish, Burmese and Hindi. These languages differ widely as to the types of letter used and sentence structure. Nevertheless, the eye movements resemble those for the three languages represented in Plate II. The Hindi record has more fixations per line and fewer lines read per unit of time than was the case for the other languages, but it was not that of a rapid Hindi reader; it was selected because of its clearness.

Plate IV shows eye-movement records for Arabic, Hebrew and Urdu in which the lines are read from right to left.

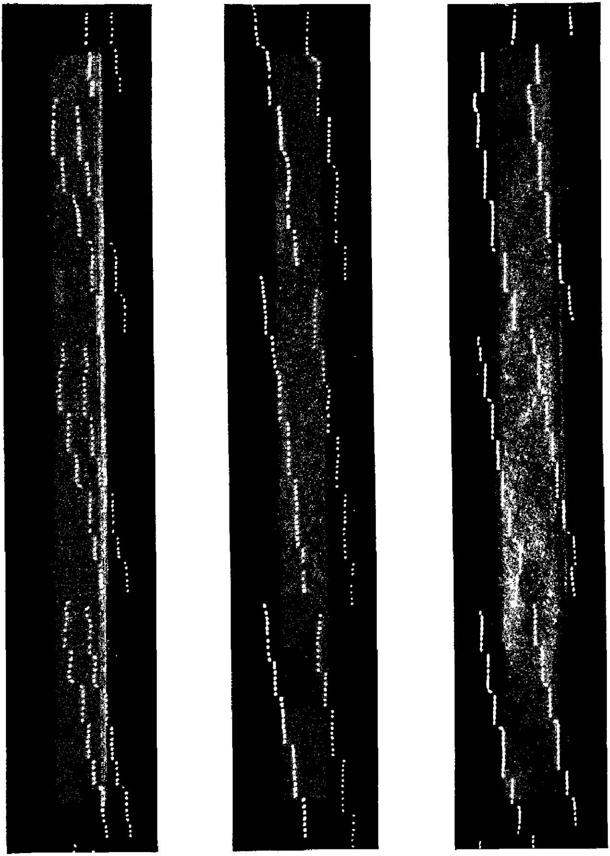
Sequoyah, Inventor of Cherokee Alphabet

Ꭰ a	Ꭱ e	Ꭲ i	Ꭳ o	Ꭴ u	Ꭵ v
Ꭶ ga Ꭷ ka	Ꭸ ge	Ꭹ gi	Ꭺ go	Ꭻ gu	Ꭼ gv
Ꭽ ha	Ꭾ he	Ꭿ hi	Ꮀ ho	Ꮁ hu	Ꮂ hv

Watie Pettit, Editor--A Trip To Cherokee, North Carolina, July 1, 1950

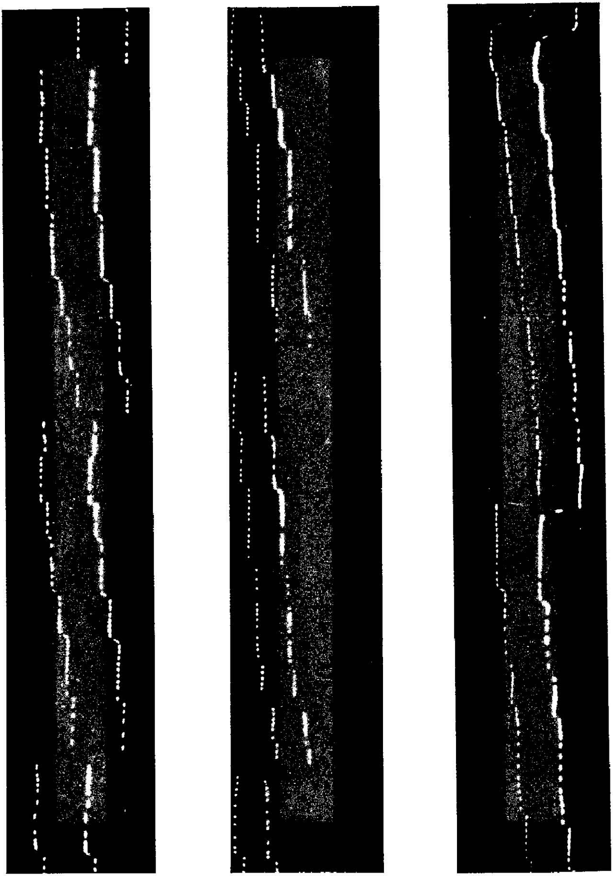
[illegible]

Plate I. The Cherokee Indian Syllabic Alphabet and a sample of the language, as printed in the 25 August 1950 issue of *The New Cherokee Advocate.*



Thai *French* *English*

Plate II. Eye-movement records in reading three alphabetic languages in which the lines are read from left to right.

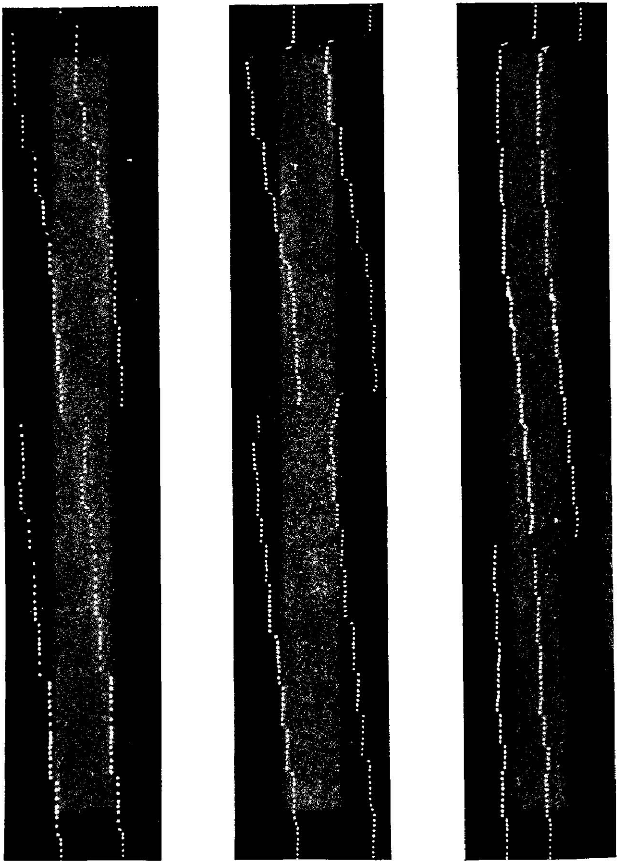


Spanish *Burmese* *Hindi*

Plate III. Eye-movement records for three other alphabetic languages which differ widely in the type of letter used.

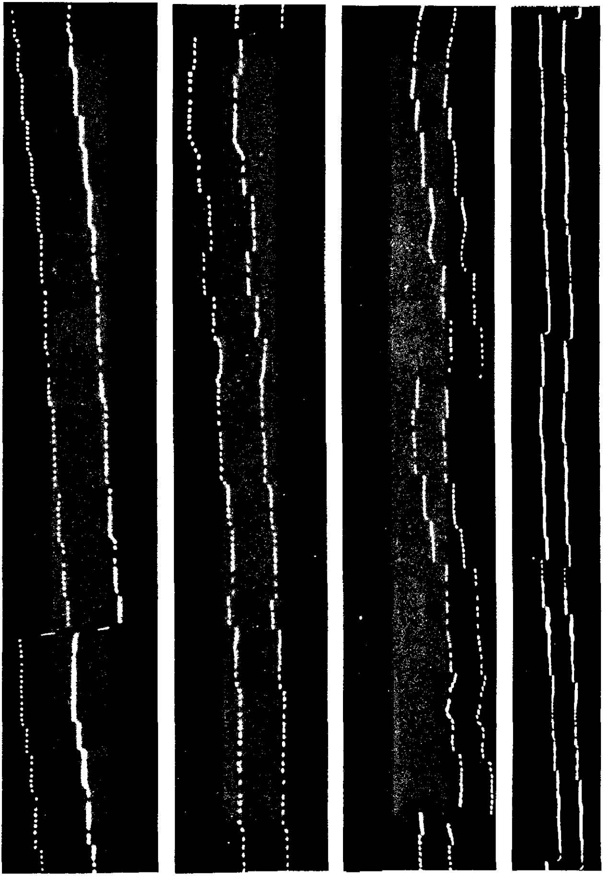
Arabic *Hebrew* *Urdu*

Plate IV. Eye-movement records for three alphabetic languages in which the lines are read from right to left.



Chinese *Japanese* *Korean*

Plate V. Eye-movement records for three Oriental languages which are written in the different types of characters used throughout the world today.



Yoruba (*a fairly good reader*) | *Yoruba* (*a poor reader*) | *Navaho* (*a fairly good reader*) | *Navaho* (*a very poor reader*)

Plate VI. Eye-movement records of the reading of Yoruba (native Nigerian) and Navaho (American Indian).

It will be noticed that the eyes fixate progressively to the left in each line. In all other respects, these records resemble those shown in Plates II and III.

Plate V shows the eye-movement records for Chinese, Japanese and Korean readers, which are presented as a unit because they make use of the three different types of character. Chinese and Japanese are normally printed in vertical columns, which are read from top to bottom. However, they are often printed in horizontal columns, read from left to right. The Korean language was also formerly printed in vertical columns, under Chinese influence. Since the development of a Korean alphabet, the language has been printed in horizontal columns, read from left to right. As the eye-movement camera could not record vertical reading the passages were printed horizontally. Since all of the subjects had read more or less in this alignment, they readily adjusted themselves to the test situation.

Upon examination, Plate V will be found practically the same as Plates II, III and IV. The relatively large number of fixations in the second line of the Japanese record confirms earlier findings. The large number of fixations and the slow rate of the Korean record are noteworthy. The Koreans tested were accustomed to read material that included Chinese characters and Korean words. The passages used for this study were printed entirely in Korean. The readers reported that their speed was considerably reduced thereby.

Plate VI shows records for Yoruba (native Nigerian) and Navaho (American Indian), which are presented together for two reasons. The readers of these languages were far less highly trained in reading their respective languages than were readers of the other languages. Most of the Yoruba readers had used their native language exclusively during the first three years of schooling, after which English was introduced for instruction. In some instances, Yoruba had been studied as a special subject at secondary school. However, their training and experience in reading Yoruba was limited more or less, and they were not as mature in their reading habits as most of the other groups. The Navaho Indians were very largely self-taught and only one had done much reading in his native language.

The record on the left is that of one of the best readers of the Yoruba language. It follows the general pattern of the previous records, excepting that he read more slowly and made more fixations per line. With practice, he would doubtless have been able to recognize wider units of the line at each fixation and read faster. The second Yoruba reader was much less mature. Only a part of the reading of one line is shown. A study of his whole record reveals that he made many backward movements and often lingered at given points on the lines, for he did not recognize quickly either the words or the meaning of the passage, or both, and found it necessary to re-read many parts of each line. Such difficulties can usually be overcome by carefully planned training and wide reading. It should be pointed out that some readers reported difficulty owing to the translator's order of words or the lack of marks indicating tonal values.

The third record from the left in Plate VI is that of a fairly good Navaho reader. Although he was self-taught, his record is characteristic of a mature reader. This is due largely to the fact that he had read whatever material he could find in Navaho and so had improved. His reading followed the same general pattern as that of readers in other languages who had received systematic training, which suggests that this distinctive pattern is gradually acquired by all who become mature readers.

The record on the extreme right in Plate VI is that of a very poor Navaho reader, who had read very little. The record shows many fixations, long pauses, and several backward movements. Observations made during the reading showed that he was not sufficiently familiar with many of the words to recognize them instantly and studied each one carefully, sounding its various letters. When asked why he

had not done more reading, he said that it was very hard for him to read and that he did so only when it was necessary. The inference to be drawn is that unless the training received by a reader carries him to the point where he can read with reasonable ease it is possible that he will make very little use of his ability. In time his skills will be lost and all his previous efforts will be fruitless.

ANALYSIS OF FACTS REVEALED BY THE RECORDS

Additional data are summarized in Table 6, which shows, from left to right, the number of subjects studied, the number of words per fixation in both oral and silent reading, the duration of the fixations in thirtieths of a second in both types of reading, and the frequency of regressive movements in terms of the number of words read orally and silently per regression. The average number of words recognized per fixation (at the bottom of the table) was slightly larger in silent reading than in oral reading.

This finding agrees with those of previous investigations, though they vary for the different languages. For French and English, the average is distinctly higher in silent reading, whereas for Korean, the average is distinctly higher in oral reading. For all other languages, the average amount recognized per fixation is the same in both types of reading, or does not vary either way by more than one-tenth of a word. The averages at the bottom of the table show also that the duration of fixations was much greater in oral reading than in silent reading, where the reader is free to proceed from one fixation to the next as soon as he has recognized and understood the words. In oral reading he can proceed no more rapidly than he can pronounce the words.

In interpreting the data concerning the average number of words per regression in both oral and silent reading, it should be borne in mind that the smaller the number of words per regression, the more often regressions occur. There were more regressions in oral reading than in silent reading for the group as a whole, and for each language group, excepting the Burmese and the Korean. These findings confirm those of previous studies. A reader may make a regression in oral reading for any of the various reasons that cause him to do so in silent reading. In addition, he may move his eyes backward in oral reading to check the pronunciation or the exact order of the words in a passage, to determine which words to accentuate in reading aloud and, at times, to wait until the voice more nearly overtakes the eyes in reading.

Further study of the data relating to the number of words per regression reveals striking differences among languages. Attempts to explain these differences in terms of the kind of characters used, the printing of sentences without spaces between words, or the number of words required to express the same content were unsuccessful. A comparison of the averages of the different languages showed that those in which few regressions were made usually, but not always, had a wide average span of recognition. An analysis of individual records revealed great variation within each language. As a rule, the slowest readers and those having narrow spans of recognition made the largest number of fixations. These findings suggest that differences in language are not the primary cause of variations in number of regressions.

Possible causes of regressions in the five language groups with the most regressions were studied. Many of the regressions of the Navaho readers were directly due to difficulty in word recognition. The Yoruba readers were handicapped by unusual words in the translation and absence of marks indicating tonal values.

TABLE 6. Comparative efficiency of oral and silent reading as revealed by eye-movement records for fourteen languages

Language read	No. of subjects	Words per fixation		Duration of fixation		Words per regression	
		Oral	Silent	Oral	Silent	Oral	Silent
Arabic	6	1.3	1.4	16.8	13.1	8.7	10.0
Burmese	2	2.5	2.4	15.7	10.6	38.6	32.7
Chinese	7	2.5	2.5	16.5	11.0	36.5	59.8
English	7	1.3	1.6	12.9	9.1	10.7	14.5
French	5	1.3	1.6	14.1	10.8	13.9	20.3
Hebrew	6	1.3	1.3	17.9	10.6	7.7	15.9
Hindi	6	1.6	1.5	17.5	11.7	20.4	21.6
Japanese	7	1.0	0.9	17.3	10.4	16.1	17.4
Korean	7	1.2	1.0	16.4	11.5	40.9	31.6
Navaho	2	0.7	0.7	16.9	15.4	7.2	9.4
Spanish	5	1.4	1.5	15.0	10.0	14.3	25.1
Thai	6	1.6	1.6	17.9	10.5	25.0	27.2
Urdu	7	1.6	1.7	16.0	11.6	14.2	24.9
Yoruba	5	1.4	1.4	15.8	12.7	9.2	16.8
Averages[1]		1.5	1.6	16.1	11.0	19.3	24.7

1. Averages based on sums of all individual records, excluding records for the Navaho language. Because the groups were small and a typical group, standard deviations or similar measures were not used.

Readers of Arabic and Hebrew explained that they had been taught to read each line with great care, thus causing many regressions. English readers, on the other hand, had acquired the habit of moving rapidly along the lines and regressing frequently to check first impressions. All the evidence supported the conclusion that many regressions are due more to such factors as immaturity in reading, type of training received and individual perceptual habits than to the nature of the language.

SUMMARY STATEMENT

These studies demonstrate that the general nature of the reading act is essentially the same among all mature readers. These conclusions are supported by a recent eye-movement study[1] of 'reading patterns' by native readers in German and English. It was found that 'there is no discernible variation between the reading patterns of literate native speakers of these languages. There is, furthermore, no apparent change in the reading habits where an educated native speaker of one language learns to read the other'. The only cause of a break in the normal reading sequence was 'inability to understand a semantic unit as the eye traversed the left-to-right line'.

The mature reader, as he seeks the meaning of the passage, follows the lines in an alternation of short eye movements and pauses. At each fixation he recognizes words as wholes, that is by their general form and striking characteristics. As a rule, two or three words are recognized at each fixation of the eyes. At times the good

1. Waterman, John T. 'Reading Patterns in German and English', *The German Quarterly*, XXVI (November 1954), pp. 225-7.

4057
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reader makes a regressive movement to recognize unfamiliar words or ascertain the meaning. Oral reading is necessarily slower than silent reading and is of a slightly different pattern. There are great individual differences in the level of proficiency attained.

The mature reader has mastered the basic attitudes and skills required for good oral reading and fluent, thoughtful, silent reading. Irrespective of the form and structure of languages, these attitudes and skills include a thoughtful reading attitude, accuracy and independence in recognizing words, a reasonably wide span of recognition, the regular forward movements of the eyes along the lines with only such regressive movements as are necessary, the accurate return sweep of the eyes from the end of one line to the beginning of the next, the fusing of separate words and groups of words into the ideas they represent, and the ability to interpret these ideas.

This report proceeds on the assumption that the teaching of reading in all languages is directed towards the development of these basic attitudes and skills. Many of the detailed procedures essential in developing efficient readers vary to some extent with the form and structure of the language, but teachers, guided by a clear understanding of common goals, will make use of those procedures which are most effective in their own language.

CHAPTER IV

READING ATTITUDES AND SKILLS ESSENTIAL TO FUNCTIONAL LITERACY

In order to develop good readers we need to understand the nature of the basic attitudes and skills essential for reading. Reference has been made to those revealed by eye-movement records. Our knowledge has also been greatly extended during recent years through other studies made by psychologists, semanticists and specialists in reading. In this chapter we shall discuss the nature of the basic reading attitudes and skills that merit emphasis in promoting functional literacy in the mother tongue. In this connexion it is important to have a concept of reading broad enough to cover efficiency in all the types of reading activity that modern life demands.

THE EXPANDING CONCEPT OF READING

The concept of reading that has guided teaching practice in the past has been a dynamic one.[1] It has frequently changed as research has made the nature of the reading act clearer and as individual and social needs for reading have increased.

Before 1900, the principal aim in teaching reading was word recognition. It was assumed that reading was primarily a perceptual act and that other steps required for achieving certain other purposes of reading were not essential.[2] As it was a test of the accuracy of word recognition, oral reading was used almost exclusively in class. No question is raised here concerning the need for efficient habits of word recognition or the value of oral reading; their importance will be emphasized repeatedly. None the less, it is a fact that other important aspects of reading were largely neglected.

In the course of time a much broader concept of reading emerged. It resulted from two important developments. After 1900, great social changes occurred in different parts of the world, and the need for reading and for greater ability to understand and enjoy what was read became increasingly apparent. At the same time, research showed that silent reading was much faster and more effective than oral reading.

Accordingly, teaching methods were modified to ensure the development of a good grasp of meaning as well as the skills of word recognition, and to develop

1. Gray, William S. *Methods and Techniques of Teaching Reading*. Cairo, Institute of Education, Ministry of Education, Government Press, 1950, pp. 11-24. (Published also in Arabic.)
   National Society for the Study of Education. 'The Growth of a Broad Concept of Reading', *Reading in the High School and College*. Forty-seventh Yearbook, Part II, Chicago, University of Chicago Press, 1948, pp. 27-32.
2. Otis, Arthur S. 'Considerations concerning the making of a scale for the measurement of reading ability.' *Pedagogical Seminar*, Vol. XXIII, December 1916, p. 528.

efficiency in silent reading. Interest was aroused in reading and pupils were encouraged to establish the habit of reading regularly for pleasure. These developments are perhaps the most significant that have occurred during the entire history of the teaching of reading.

Again, reading began to be regarded as a form of experience, like hearing or seeing, as well as a form of learning. It became apparent that the efficient reader not only recognizes words and grasps the ideas presented, but also reflects on their significance, relates them, and sees their implications. If he is to benefit from these ideas, moreover, he must react thoughtfully to what he reads, weighing its value and the soundness of the judgments or conclusions. It is equally important for him to apprehend the value and significance of the content. Finally, if reading is to help him solve problems or direct his own activities, he must learn to apply the ideas acquired.

NATURE OF ESSENTIAL READING ACTIVITIES

Since these developments took place in countries in which reading has been used widely for generations, it was pertinent to ask whether the same training is essential in less advanced areas. A study was therefore made of the reading activities of children and adults in areas where programmes of fundamental education are in progress. The examples selected for analysis have been classified into groups according to the demands made on the reader.

GROUP ONE: SIGN READING

Reading such words as 'Danger', 'Stop', 'Go', for self-protection.
Reading signs on buses in order to know which one to take.
Reading labels on cans (tins), medicine bottles and other containers in order to select and use the right one.
Reading the names of streets, house numbers, names of public buildings in order to get to the right place.

The most obvious reading skills required in each of these examples are those relating to word recognition. In many cases the words are recognized at sight; in others, the reader must apply whatever skills he has that help him to recognize and pronounce them. But mere recognition of words is not enough. Reading is vital when the child or adult has to identify signs, numbers on buses, names of streets or labels on cans, with a definite purpose in mind. Recognition is immediately followed by some practical decision. The reading act, although limited in scope in the examples given is usually subsidiary to some larger purpose and brings in many elements of good thinking.

GROUP TWO: GAINING INFORMATION OR SATISFYING CURIOSITY

Reading a bulletin board or a news-sheet to find out what has happened recently.
Reading a leaflet or newspaper to learn about proposed local projects.
Reading in school to find out how people in other countries live.

In such reading activities after the words have been recognized, the meaning must be grasped. Information thus obtained takes on real value when the reader interprets the facts. Let us assume that a news item or leaflet states that a new road is to be built through the community. Questions arise as to the need for the road, how

it will affect the community, and perhaps what advantages or disadvantages attach to it. Only as a child or an adult thinks about what he reads and determines its meaning or significance in the light of all he knows does reading have real value to him.

GROUP THREE: READING NOTICES OR DIRECTIONS

Reading notices that warn of possible dangers, such as an epidemic.

Reading new village ordinances that change previous practices or introduce new regulations.

Reading directions for doing and making things.

This group of reading situations requires all the steps outlined in the preceding paragraph. However, the materials to be read are intended to modify behaviour. The reader should follow the order of the directions, the ends to be achieved, and what each demands of him. In reading a warning, he should grasp its importance and understand what to do. In reading new ordinances, he should compare them with the old, consider the reasons for the new ones, and decide on needed changes in his own behaviour.

GROUP FOUR: SOLVING PROBLEMS

Reading to discover similarities and differences in the homes, clothing and food of people in warm and cold countries.

Reading to discover ways of improving the sanitary conditions in the community.

Reading to discover the best kind of food for infants.

It is assumed here that the child or adult begins to read with a definite problem in mind. As he reads a passage, he looks for ideas that throw light on his problem, while disregarding others, and organizes the ideas acquired into a vivid picture of homes in other lands or the steps needed to raise better crops. Even when the information is presented in the form of brief directions, such as *do this* and *do not do this*, these should be read critically, since the blind following of directions may prove disastrous.

GROUP FIVE: THOUGHTFUL REACTION

Reading to determine whether the decision made by a character in a story was a good one.

Reading to determine the wisdom of voting for a proposed change in the source of a community's water supply.

To achieve either of these purposes calls for clear thinking. As an adult reads he seeks information relevant to his problem and studies its implications for that problem. While reviewing the evidence, he must retain an open mind until he is prepared to make a decision. Obviously, reading situations of this type make many demands on the reader: seeing implications, grasping relationships, choosing between alternatives, checking conclusions.

GROUP SIX: READING FOR PLEASURE AND INSPIRATION

Reading for pleasure.
Reading various types of material to enjoy the rhythm, choice of words, beauty of expression.
Reading religious and other materials for solace and inspiration.
Such motives are as vital for those who live in underdeveloped areas as elsewhere. In New Guinea, for example, many of the natives learn to read for the sheer joy of it. The desire to satisfy interest and curiosity and to find inspiration through reading is also very general, as are religious motives for reading. To actualize these motives requires all of the attitudes and skills to which reference has been made. It is also important to arouse visual, auditory and kinaesthetic imagery and the appropriate emotional responses.

As reading assumes many forms and makes many demands on readers in underdeveloped areas, an equally wide range of reading attitudes and skills should be developed in extending functional literacy.

ESSENTIAL READING ATTITUDES AND SKILLS

Many attempts[1] have been made recently to ascertain the attitudes and skills required for efficient reading. They may be classified to advantage as follows: *perceiving words*; *grasping meanings*; *reacting to what is read*; *using or applying* the ideas acquired. These steps correspond closely with the demands which modern life makes on readers. They will be used, therefore, as the key items in the discussion.

PERCEIVING WORDS

Perceiving words in reading involves two steps: the focusing of attention on written or printed material in a spirit of inquiry; the arousal of associations that help in distinguishing one word or group of words from another and in recognizing their meanings or pronunciations, or both.

PERCEPTION AMONG MATURE READERS

As shown in Chapter III, a mature reader in any language recognizes words as wholes, that is, by their general characteristics or striking features, often in groups of two or more. This as a rule occurs quickly and without hesitation, the eyes moving regularly along the lines. When, however, the reader meets an unfamiliar word, he examines it carefully for clues to its recognition. This view is supported by the results of research. In a detailed study, for example, of perception among both children and adults reading an alphabetic language, Hamilton[2] found that the general characteristics of a word are the clues by which it is recognized. 'But when some unfavourable condition arises, or when words are strange or difficult, additional distinctions within the word are required, in which case the parts

1. Gray, William S. 'Basic Competencies in Efficient Reading,' in: National Council of Teacher of English. Committee on Reading at the Secondary School and College Levels. *Reading in an Age of Mass Communication*. New York, Appleton-Century Crofts, Inc., 1949, Chap. IV.
2. Hamilton, Francis Marion. *The Perceptual Factors in Reading*. New York, The Science Press, 1907, pp. 52-3. (*Columbia Contributions to Philosophy, Psychology and Education*, Vol. 17, No. 1.)

of the words must be brought clearly to consciousness according to the degree of complexity or unfamiliarity.'

With Chinese, as shown in Chapter II, the situation is different. If a word has been learned previously but is not recognized instantly, a study of its details may help the reader to distinguish it from other words and thus to recall its meaning and pronunciation. If it is a new word, however, he cannot recognize it with certainty merely by studying its details; he must either be told the meaning or find it in a dictionary with the pronunciation given in phonetic symbols. To read an unfamiliar Japanese word, consisting of Chinese characters and *kana* symbols, it may be necessary to deal with the Chinese characters as described above, to identify the sounds of the *kana* symbols used, and then to combine these various clues.

Hence the ability of a child or adult to cope with word difficulties depends upon the extent to which he has acquired the skills appropriate to his language. Both experience and the results of research supply convincing evidence that one of the chief causes of poor reading is lack of adequate training in the skills of word recognition.

HOW ABILITY TO PERCEIVE WORDS DEVELOPS

Hundreds of investigators have studied this question during the last century. Their findings have been summarized at length by Huey,[1] Tinker,[2] Vernon,[3] and Woodworth[4]. It will be helpful to describe first the way in which competence is acquired in perceiving forms and objects in general. Young children, as a rule, perceive new and unfamiliar objects as wholes,[5] vaguely at first, and later in increasing detail. (There are exceptions[6] which merit further study.) The same procedure is followed by adults. Because of their broader knowledge and experience, they usually make more rapid progress in picking out salient details than do children.

The way in which growth in ability to perceive words develops will be described first in terms of what occurs when words are presented as wholes in teaching reading. As children or adults engage in an interesting classroom activity or discussion, some of the words or sentences are written on the blackboard, and as this is done, meanings and pronunciations are associated with them. Scores of experiments[7] have demonstrated that under these conditions words are learned easily and rapidly. To ensure instant recall, they are presented repeatedly in a relatively short period of time. At this level, one word is distinguished from another only by its general characteristics and distinctive features. The advantage of this approach is that the pupil realizes at once that words represent ideas, and he is much more likely to adopt an inquiring attitude towards their meaning when he attempts to read.

1. Huey, Edmund B. *The Psychology and Pedagogy of Reading*. New York, The Macmillan Co., 1912, Part I.
2. Tinker, M. A. 'Visual Apprehension and Perception in Reading.' *Psychological Bulletin*, Vol. 26, April 1929, pp. 223-40.
3. Vernon, M. D. *The Experimental Study of Reading*. London, Cambridge University Press, 1931, Chaps. V and VI.
4. Woodworth, Robert S. *Experimental Psychology*. New York, Holt, 1938. Chaps. XXIII and XXVIII.
5. Decroly, O. 'Le rôle du phénomène de globalisation dans l'enseignement.' *Bulletin annuel de la société royale des sciences médicales et naturelles*. Bruxelles, 1927, pp. 65-79.
   Simon, Dr. Th. *Pédagogie expérimentale*. Paris, Armand Colin, 1924, pp. 101-2.
   Vernon, op. cit.
6. Goms, Jean Turner. *Visual Perceptual Abilities and Tadustoscopic Training related to Reading Progress*. Doctor's Dissertation, Department of Education, The University of Chicago. 1953, 270 p.
7. Monroe, Walter S. ed. 'Reading'. *Encyclopedia of Educational Research*. New York, The Macmillan Company, 1950, pp. 972-1005.

When a number of words are known, chiefly in terms of their striking features, it becomes necessary to examine them in detail—particularly words which are similar in form, such as *bad* and *had*, *when* and *where*, *then* and *than*. Equally good illustrations could be given for many languages. In order to help the learner distinguish between them, various devices are used. The teacher may write on the blackboard, one above the other, words which are similar in many respects so that their differences will stand out sharply. Similarities and differences may also be pointed out. The pupils may then be asked to trace or write the words. Teachers of Chinese say that the process of learning to distinguish one character from another is greatly facilitated if they are presented in order of complexity and if the pupil writes them. Through these and other devices, the details of words are gradually learnt.

In the alphabetic languages, as this process continues, the learner notes that the same letters occur repeatedly in different words. He thus comes to distinguish one letter from another. In highly phonetic languages, he discovers shortly that a given letter always has the same sound. With guidance, he learns to apply this fact in the recognition of new words. In Spanish, in which the syllables are simple, prominent, and frequently repeated, the learner may focus attention on syllables at first rather than on individual letters. Ultimately all the details of form and sound are noted and their significance as elements of words is recognized.

The problems are more complex in those alphabetic languages[1] in which given letters or combinations of letters do not always have the same sound. The pupil needs careful guidance in discovering and applying general principles governing the sounds of letters in different types of words—for example, *hat* and *hate* and in recognizing exceptions and learning how to deal with them. Still other problems arise as words of more than one syllable are introduced. If attention is directed to each part of such words—*playhouse*, for example—the learner discovers that longer words are made up, as a rule, of two or more pronounceable units. A basis has thus been laid for the recognition and pronunciation of polysyllabic words.

Different views are held concerning the time at which guidance should be given, and its amount and character. Many adhere to the general procedure outlined above and provide systematic training from the beginning. Others consider that little or no guidance should be given at first; that it is far better to rely on the learner's insight in making needed distinctions and in developing the ability to recognize words.

Most of the evidence now available supports the view that guidance in word discrimination should be provided from the beginning, with increasing emphasis as the pupil advances on word attack skills. Such training should expand as rapidly as the needs of the increasing vocabulary dictate and should be continued as long as new problems arise. Of course, the nature of the specific knowledge and skills that should be imparted will vary according to the language. Individuals differ widely in the amount and kind of guidance needed. Many children who develop slowly are often forced to make detailed discriminations before they are prepared to do so, with the result that they become confused and hostile to reading.

There are many other methods of developing accuracy and independence in word recognition. They are based, as a rule, on the assumption that the most economical and effective way to learn is to master the elements of words, then to use these in the recognition of new words. The advantages and limitations of such methods will be discussed at length in Chapter V. Every aid to word recognition should be used in teaching children and adults to read, including phonics. Any plan of teaching, however, that starts with formal mastery of the phonetic elements of a language

1. Gray, William S. *On Their Own in Reading*. Chicago, Scott, Foresman and Co., 1948, 268 p.

violates the basic principles of word perception discussed earlier. Failure to learn such elements and to acquire skill in applying them, however, is equally open to criticism. The question is when and how. This will be considered more fully in later chapters.

In the recognition of words, both meaning and pronunciation associations are aroused. For meaning, the chief resource of a reader is his background of related experiences.[1] This may be very limited and hazy, or it may be rich and vivid. As a rule, the wider the speaking and hearing vocabulary of a reader, the greater the likelihood that many associations will be aroused. If a passage is to be understood these associations must resemble those which the author had in mind when he wrote it, thus they are of great importance in reading.

There are at least four problems to be faced in helping readers associate appropriate meanings with the words read. The first is to attach familiar meanings to written or printed words. To this end, the words used in early reading lessons should be those which already have meaning in the life of the reader. As these words are recognized in later lessons, it is likely that the same associations will again be aroused. The second problem is to expand the meanings of words as rapidly as their use in reading materials makes this step necessary. The third problem is to train readers to choose from the many meanings associated with a given word that which is appropriate in the context. The fourth problem is to help readers attach appropriate meanings to new words as they appear in the passages read and to expand their meanings as rapidly as occasion demands. (Teaching procedures will be discussed later.)

Finally, the associations aroused should result in clear and accurate pronunciations. This is essential if the pupil is to read aloud or discuss the content of what has been read. The reader is often aided in grasping the meaning of what is read by recognizing and pronouncing words which are not yet in his reading vocabulary but which he uses regularly in conversation. The words used in early reading leasons, however, should be limited to those in the child's speaking vocabulary. Often much preliminary training is needed to improve enunciation. Unless poor habits are corrected children will not only continue to read and speak incorrectly, but will be greatly handicapped in their use of phonics as an aid in word recognition.

GRASPING THE MEANING OF WHAT IS READ

Most reading material has at least three levels of meaning: the literal meaning, related meanings and implied meanings. As a matter of fact they are acquired more or less concurrently. For purposes of emphasis, the nature of each will be discussed separately.

The Literal Meaning of a Passage

The literal meaning of a passage answers the question: 'What does the passage say?' In the sentence, 'The water in our village well is good to drink', the literal meaning tells the reader two things: which water is safe to drink and the quality of the water in the well. At least four general attitudes and groups of skills come in here.

A thoughtful, inquiring attitude. As explained earlier, the good reader is intent on

1. Gray, William S. and Holmes, Eleanor M. *The Development of Meaning Vocabularies in Reading.* Chicago, University of Chicago Press, 1938, pp. 6-9. Publications of the Laboratory Schools of the University of Chicago.

meaning. This aids in arousing associations and in anticipating the sequence of ideas. The greater the reader's familiarity with the words of a passage and with the things, activities, ideas or situations to which they refer, the more numerous and more vivid the associations aroused will be. When he encounters a word that he does not recognize at once he quickly utilizes all the aids to word recognition that he has learned. Failure to adopt a thoughtful reading attitude usually results in little or no grasp of meaning. Accuracy in word recognition and grasp of meaning are also greatly influenced by the reader's state of mind and his stock of knowledge, attitudes and prejudices. Serious errors occur if pupils are not trained to read with care.

Fusing the meanings of words into ideas. As associations are aroused in reading, they are fused into the ideas the author had in mind when he wrote the passage. The nature of this step is illustrated in Figure 3.

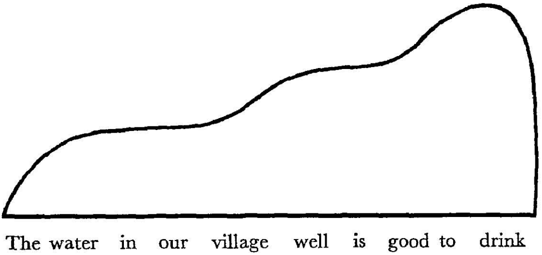


Figure 3. The fusion of meanings of separate words into a meaningful whole. (Adapted from Huey.[1])

As one reads the first two words in this sentence various associations are aroused. This grasp of meanings is restricted and made more definite as the third, fourth fifth and sixth words are recognized. The thoughts then retained are held in mind, as the reader continues to the end of the sentence. When he recognizes the words, 'good to drink', the meaning already acquired is greatly expanded and clarified. The final idea is the result of the fusion of the meanings of separate words into a coherent whole.

Not infrequently the first associations are not the ones the author wished to convey. For example, the word 'water' may have aroused a mental picture of a flowing stream. In this case, the reader is forced to revise his first impression, and indeed his whole attitude towards the meaning of the sentence, as he reads the phrase 'in our village well'. It follows that grasping the meaning of a sentence is a thinking process which entails recalling, accepting, rejecting and organizing, as the search for the right meaning continues.[2] Most pupils profit from guidance which encourages a thoughtful reading attitude and raises questions concerning possible meanings.

As a reader advances, unfamiliar words appear. Their meaning may often be conjectured through a study of the context, through a knowledge of the meanings of specific parts of words, and through explanations or illustrations given by the

1. Huey, Edmund Burke, *The Psychology and Pedagogy of Reading*, op. cit., p. 131.
2. Thorndike, Edward L. 'Reading as Reasoning: a Study of Mistakes in Paragraph Reading.' *Journal of Educational Psychology*, Vol. VIII, June 1917, pp. 323-32.

teacher. Sooner or later the pupil must learn to use a dictionary. In reading passages that contain new words and concepts or refer to things and activities that lie beyond his range, the reader often experiences real difficulty. Good teaching anticipates these difficulties and helps the reader overcome them.

Relating and organizing ideas. But a good reader does far more than attach appropriate meanings to the words and fuse them into a sequence of related ideas; he also grasps the meaning of sentences and paragraphs in relation to the whole text, and recognizes their relative importance. Finally, he follows the author's organization of ideas, and distinguishes introductions, transitions and conclusions.

Pupils should be taught from the beginning to recognize the sequence and organization of ideas. The reading of a very simple story, for example, which has a beginning, a middle and an end, provides an excellent opportunity for such training among children. Equally valuable for adults is the reading of such material as a short, well organized passage describing the danger of drinking water from stagnant pools and the steps which should be taken to ensure a pure water supply.

Reading with reasonable speed. As a result of early training, many pupils learn to seize the literal meaning of passages more rapidly than they can read aloud, for they recognize words at sight, often in units of two or three, and quickly grasp the ideas presented. If they have the opportunity to read much simple material, they soon develop considerable speed in understanding what is read, that is, they recognize relatively large units at each fixation of the eyes and move swiftly forward along the lines with few regressions. In such cases, little or no additional attention to speed is necessary. Unfortunately, many children and adults do not acquire the habit of reading fluently without a great deal of guidance and practice. Some may be naturally slow learners; others, who are more capable, continue to read very slowly because of lack of interest, a small vocabulary, or a limited background of experience. Definite steps should be taken to overcome these difficulties. Then the best way to increase speed is to provide much simple reading material of real interest to the reader. Unfortunately, simple books or selections for young children are limited in number in many countries, and simple material for adults is almost entirely lacking. Until such materials are available, teachers should encourage the frequent re-reading of selections that have already been studied, but always with a new purpose in mind.

Related Meanings

A good reader understands not only the literal meaning of a passage, but its related meanings as well which includes all the reader knows that enriches or illuminates the literal meaning. Such knowledge may have been acquired through direct experience, through wide reading, or through listening to others.

Let us assume that a group of adults have read the following notice on a notice board: 'Dr. Brown has found that the water in our village well has bacteria in it.' Some of the adults had listened to a talk given by Dr. Brown the night before; others had not. All who read the notice understood its literal meaning, but their grasp of its significance varied according to their previous experience. Those who had heard the talk recalled many facts that greatly extended their understanding of the literal meaning of the sentence. For example, they know that sickness was spreading in the community; that this might be due to the impurity of the drinking water; that Dr. Brown was to examine the water in their well to see if there were bacteria in it; that if he found bacteria in the well they should not drink water from it. This example

emphasizes the fact that related meanings greatly increase one's understanding of the meaning of a passage.

Unfortunately, all too little attention is devoted to related meanings in either primary schools or literacy classes. If a passage deals with things or activities within the range of the reader's experience, related ideas may be aroused through the use of carefully planned questions. For example, if pupils are reading about children in other lands, the question may be asked; 'In what ways are their games and play activities similar to and different from ours?' Such a question usually stimulates the recall of many related experiences that aid in understanding the nature of the play activities of children in other lands.

Much concrete experience or the use of audio-visual aids should precede the reading of a passage. In adult classes, a film is sometimes screened and discussed before a bulletin relating to health or farming is read. Pictures, demonstrations, or field observations may be equally useful. Questions should always be asked with a view to relating the facts thus learned to those in the passage. Then class discussion should follow the reading.

Implied Meanings

As a good reader grasps the literal meaning of a passage and recalls related meanings, he also seeks its implied meanings, that is, ideas that are not expressly stated but may be implicit. In reading a story, for example, children often infer what kind of person a character is by what he says and does. In reading a description of a country, they deduce its climate from its vegetation and crops, the houses of the people, and the way they dress. Adults select the best candidate for an office by drawing inferences about him from statements made in a newspaper. They may also discover the need for improved sanitary conditions in their community by drawing inferences from facts read in a bulletin on health or hygiene.

The attitude and skills necessary for the drawing of inferences as one reads do not develop automatically. Carefully planned guidance is needed. In preparing a lesson, teachers should examine the materials to be read for hidden or implied meanings. One or two questions may start the readers on the search for them. During the discussion that ensues they should report the inferences they have drawn, and should be asked to point out statements in the passage that justify them. These statements should be examined by the class to determine whether inferences are valid. Through such activities, readers learn that there are implied meanings in a passage worth looking for. Such training also develops the habit of drawing inferences thoughtfully and with caution.

REACTING TO THE IDEAS ACQUIRED

As a good reader grasps the meaning of a passage, he thinks about it. He may be amused, he may be impressed with the soundness of the ideas, he may be inspired. He may compare the facts presented with what he knows and may reject or accept them. He may detect that the author is biased and may refuse to read any further. In these and other ways, a good reader indicates that for him reading involves far more than the recognition of words and a grasp of literal and implied meanings.

As psychologists[1] have often pointed out, it is not the ideas acquired through

1. Pyle, William H. *Psychology of the Common Branches, with Abstracts of the Source Material.* Baltimore, Maryland, Warwick & York, Inc., 1930, p. 77.

reading that result in most growth, but the reader's reactions to them. If a reader has acquired the habit of reacting thoughtfully as he reads, he will be less likely to follow blindly the ideas read and will be more likely to question their accuracy and value before acting on them. Training is necessary if a generation of self-reliant, critical readers is to be developed. People have a profound confidence in the printed word, and unless they react thoughtfully to what they read, they may fall victim to propaganda.

The first requisite of critical reading is an inquiring attitude. A teacher can do much to cultivate such an attitude by raising questions, which the reader should keep in mind as he reads particular passages. The second requisite is an adequate background for arriving at sound conclusions. In some cases, an adequate background must be built up before reading begins. Very often pupils use purely subjective standards of judgment, or even prejudices, in reacting to what is read. It is the teacher's task to revise these first reactions, if necessary, in the light of new facts and experience.

To sum up: a good reader makes sure that he has fully understood what the author has said. This usually calls for re-reading and study. As he reacts to the ideas or conclusions presented, he examines his own ideas and standards of judgment to make sure that he has the necessary knowledge and experience on which to base an opinion. Finally, he checks the validity of the conclusions he reaches. A well-planned reading programme cultivates an inquiring attitude and helps supply the necessary background. Beyond these considerations which relate to meaning and behaviour are the aesthetic abilities to judge and enjoy the quality of the matter read.

MODIFYING IDEAS AND BEHAVIOUR IN THE LIGHT OF WHAT IS READ

As a good reader interprets a passage, he examines his stock of ideas in the light of the new ones. If this is well done, he gains new or clearer understanding, broader interests, and adopts more rational attitudes. These in turn influence his behaviour and enable him to cope more intelligently with his problems.

Various methods may be used to make reading effective. A group of children, for example, were reading a story which described the way in which the pupils of a school made a new pupil feel welcome as a result of carefully planned guidance by the teacher. In the discussion that followed, three steps were taken: the class pointed out the effect on the new pupil of the welcome she received; they reviewed what had occurred when a new pupil had recently entered their own school; they finally considered what plans they should adopt in the future to make new pupils feel that they were among friends. Similarly, teachers of adults should encourage students to see the relation of what is read to improved ways of farming, child rearing, and other matters of immediate concern.

Appropriate attitudes and habits are cultivated by teachers who raise such questions: To what extent do the facts just read suggest that we should change the conclusions reached yesterday, or our plans for a field trip? Such training increases and clarifies knowledge and develops rational attitudes.

PERSONAL FACTORS THAT INFLUENCE PROGRESS IN LEARNING TO READ

Most of the scientific studies in this field have been made among children, but their application at the adult level will also be considered. The age factor, which is very important, will therefore be discussed in relation to each of the other factors.

MENTAL ABILITY

At any age level children differ in mental ability, and when the scores made on reading tests are correlated with those made on mental tests, the coefficients of correlation are usually as high as between 0.35 and 0.70.[1] Indeed, mental ability correlates more highly with progress in reading than any other factor studied thus far. The fact that the correlations are not higher indicates that other factors also influence progress in reading.

Therefore differences in mental ability among children should be provided for in teaching. Dr. Lourenco-Filho,[2] knowing that the schools of Brazil were facing serious problems on account of differences in the capacity of pupils to learn, prepared tests designed to measure certain mental abilities essential to success in learning to read. These tests were given to pupils on entering school. The pupils were then divided into three groups—superior, medium and poor—and the teaching of reading was adjusted to the needs and rates of learning of the three groups. When objective tests were given at the end of the school year, 80 per cent of the pupils obtained the score necessary for passing, as compared with 50 per cent the year before. The next year no adjustments were made to provide for differences in learning ability. The percentage of passes dropped again to 50. Two years later the experiment was repeated, and the percentage rose again to 80.

Research in various countries has led to the following conclusions: (a) Children, at each age level, differ widely in capacity to learn to read. (b) They should be studied carefully on entering school and adjustments should be made in the reading programmes to meet their needs. It is often desirable to postpone teaching the slowest learners to read until they have acquired a broader background of experience, keen interest in learning to read, and better adjustment to school activities. (c) Studies of the progress of children should be made from time to time, and the amount and character of the instruction given in reading should be adjusted to the changing needs of pupils. If instruction is adapted primarily to the needs of those of average ability, the slower pupils become discouraged and often drop out of school, whereas the brighter pupils are able to keep up with little or no effort and therefore fail to make as much progress as they should, if they do not lose interest in school work altogether.

Among adults who enter literacy classes, all but the extremely slow learners have sufficient mental maturity to learn to read with considerable ease. Those of limited mental ability should be educated largely through non-reading activities. Every opportunity should be provided, however, to enable them to learn to read well enough to engage in those reading activities essential to safety and well-being. Those who are able to learn to read often present teaching problems on account of differences in mental ability. Some learn to read in a relatively short time. Others require guidance for a longer time. The adjustment of literacy instruction to the varying capacities of adults is an urgent and delicate problem.

Adults also differ in another important respect: on account of their greater maturity they are more logical than children and they work most effectively within the framework of clearly defined systems. It follows that instruction should be adjusted not only to their higher level of mental ability but also to the more mature ways in which their minds function. Such leaders as Dr. Lourenco-Filho and Dr. Frank Laubach have emphasized repeatedly the need of such adjustments.

1. Monroe, Walter S., ed., 'Reading', op. cit.
2. Lourenco-Filho, M. B. *Testes A.B.C. para verificação da maturidade necessaria a apprendizagem da leitura e escrita.* 4a edição. Edições Melhoramentos. São Paulo, Brazil, 1952.

COMMAND OF LANGUAGE

Just as a good listener interprets the language of the speaker, so a good reader interprets the language of the author. It follows that one of the important factors influencing progress in reading is the child's mastery of language. Hildreth,[1] who made a critical survey and summary of 37 research studies bearing upon the relationships between efficient reading and language attainments, found convincing evidence that the two are closely related. A child's ability, for example, to recognize and pronounce words, to grasp the meaning of sentences, to follow a sequence of ideas, or to read orally, are all influenced by his mastery of language.

Horn[2] and his co-workers also found that a child who does not understand what he reads usually fails to understand the same passage when it is read to him. Ability to read with understanding improves as a child's command of language develops. After reviewing a large number of case studies, they concluded that many failures in reading are due to inability to interpret readily the language used.

At least three steps are being taken today to remedy this. In the first place, much emphasis is placed on language activities right from the start in order to promote rapid growth in ability to understand and use language effectively. In the second place, early reading lessons are restricted to the vocabulary and language patterns which the child has already mastered. Under these conditions, progress in learning to read is much more rapid. In the third place, throughout the early years in school, the child's command of language is gradually increased, so that in time the material read may bring in a larger vocabulary and more mature forms of expression that the child uses in conversation. These new words and forms of expression are explained to the child and he is encouraged to use them. Thus ability to read and the mastery of language develop together.

The language habits of adults are, with few exceptions, more mature than those of children. The adult is therefore prepared to read material containing relatively mature forms of expression without much preliminary training. Indeed, some refuse to read material for children. However, the literacy teacher must always be on the alert to detect the vocabulary and language needs of his students. Usually some of them have very careless, inaccurate speech and fail to express their ideas clearly. Besides, when bulletins relating to special topics, such as health and farming, are introduced, new words and forms of expression are almost certain to be used. On such occasions there should be as much explanation and discussion as may be necessary to clarify the language used.

BACKGROUND OF EXPERIENCE

A third factor that influences progress in reading is the reader's background of experience. Ability to understand what is read depends in large measure on the associations aroused. These in turn depend on previous experiences. If the associations are pertinent and vivid, the reader will understand more or less fully what is read; but if few associations are evoked, he will obtain little or no meaning from what he reads. The reader's ability to grasp related and implied meanings, his capacity to make critical evaluations, and his ability to use what he reads are all bounded by his previous experience.

1. Hildreth, Gertrude. 'Interrelationships among the Language Arts.' *Elementary School Journal*, Vol. XLVIII, No. 10, June 1948, pp. 538-49.
2. Horn, Ernest. *Methods of Instruction in the Social Studies*. New York, Charles Scribners & Sons, 1937, pp. 155-6.

Many schools endeavour to enrich the children's background of experience before reading begins. Then before a child reads a selection, related experiences are recalled and new ones mentioned that will ensure a clear grasp of meaning. During the lesson the teacher asks questions, directs the discussion, and in various ways checks whether the selection has been understood. This is particularly important when pupils read materials relating to things, events, or activities beyond the range of their immediate environment.

EMOTIONAL STABILITY

During recent years it has been shown that children or adults who are emotionally disturbed do not progress as well in reading as they might. A good teacher will, of course, try in every way possible to establish cordial relations with his pupils and set a classroom atmosphere free from ill-feeling and strain. He will also try to determine the causes of any serious emotional disturbance and, in co-operation with the home, to correct the difficulty or eliminate the conditions that produce it.

Difficulty in learning to read and failure to get along well with classmates may in turn give rise to emotional problems. Children so affected come to dislike reading, pay little or no attention in class, and avoid reading. Not infrequently they also acquire a dislike for school, develop behaviour disorders or drop out. To prevent such situations from arising, teachers should study pupils' progress in reading, and should make such adjustments in their training as may be needed.

In the same way, the teacher of a literacy class for adults should establish cordial relations with each pupil, create a friendly atmosphere, and avoid criticisms that would embarrass anyone. Many adults enter literacy classes with great hesitancy because they fear they may not be able to learn readily. They are sensitive to their weaknesses and resent criticism or teaching procedures which place them in an unfavourable light before others. It is of great importance therefore to arrange class activities so that each adult makes some progress and derives pleasure from his work during every class period.

PHYSICAL CONDITION

Finally, progress in reading is greatly influenced by such physical factors as nervousness, fatigue, bodily pain or disorder, undernourishment or repletion. Failure in reading is sometimes due to visual and auditory defects. In recognition of these factors, increasing provision is being made today for the physical examination of children and for corrective measures.

CONCLUDING STATEMENT

With the growing demands made on readers, reading programmes have expanded greatly in the more literate countries. In less well-developed areas too, broader training is called for. Experience shows that the old types of training designed chiefly to develop skill in word recognition are inadequate. Training is needed in at least four basic aspects of reading, in perceiving words, grasping meanings, reacting to what is read, and using or applying the ideas to achieve specific ends. The development of these attitudes and skills is important in all areas where literacy is to be extended. The problems of obtaining satisfactory results, however, is greatly affected by individual differences.

CHAPTER V

METHODS OF TEACHING READING

In this and the next chapter we shall be concerned with the nature and relative efficiency of different methods of teaching reading. Many different methods have been, and are still, used in teaching children and adults to read. Those that differ very much are usually based on different assumptions; moreover, notable changes have been made in most of the old methods that are still used, owing to criticism, new needs, and philosophies of education and further reseach. Therefore the various methods of teaching reading will be studied in some detail in their historical setting, along with the basic assumptions underlying them. Such an analysis should bring out the advantages and limitations of each. The findings summarized in this chapter provide the necessary background to Chapter VI, in which the relative efficiency of different methods will be considered in the light of objective evidence.

SCOPE OF THE SURVEY

A study was made, first, of the literature on the subject and, second, of about five hundred different sets of materials now used in teaching people to read. More than a hundred sets for children and an equal number for adults were studied in detail by the writer, with the help of an interpreter. Approximately fifty sets at each level were studied by reading specialists in the countries for which the materials had been prepared, that is, all the continents and most countries. The study is believed, therefore, to be fairly representative. Two important findings affected the scope of this chapter and the plan used in classifying the methods examined.

The first is that ever since reading has been taught, attention has been directed primarily to ways of developing the attitudes and skills required in early reading activities. Before 1925, published reports had little to say about the methods used beyond the earliest stages in teaching people to read. Yet the methods used at the more advanced levels differ so radically from those used in the early stages that they cannot easily be discussed at the same time. Therefore, this chapter will deal with methods relating to early instruction in reading only.

The second finding was that many differences are differences of terminology, due in part to concern with some particular aspect of reading. 'Synthetic' and 'analytic' refer to the psychological processes involved in some of the steps in reading. 'Alphabetic', 'phonic', 'word' and 'sentence', refer to the speech or language unit taken as the point of departure in teaching people to read. 'Global' and 'ideo-visual' are concerned with the way in which the mind receives ideas and learns to recognize words. Again, 'auditory', 'visual' and 'kineaesthetic' indicate the sense avenue most emphasized in teaching word recognition.

BASIS USED IN CLASSIFYING METHODS

Many authorities classify most, if not all, methods of teaching reading into two broad groups on the basis of the psychological processes involved: 'synthetic methods'[1] and 'analytic methods'. A third group is often included—namely, 'analytic-synthetic methods'—which combines certain elements of the first two.

This classification was used in the report entitled, *The Teaching of Reading*,[2] which summarized the replies of 45 countries to a questionnaire, and was vigorously attacked when the report was discussed at the XIIth International Conference on Education, convened by Unesco and the International Bureau of Education. There was also disagreement concerning the class to which particular methods belonged.

This may be readily explained. Some interpreted the terms, 'analytic' and 'synthetic' according to particular philosophies. As defined by the authors of the report, however, the term, 'synthetic', referred to the mental process of combining *the detailed elements of language (the sounds of letters and of syllables) into larger* units (words, phrases and sentences), and the term, 'analytic', referred to the mental process of breaking down these larger units into their constituent elements. If restricted definitions are accepted and strictly adhered to, these two terms can be used to advantage.

The terms, 'synthetic' and 'analytic', were not adopted as the basis for classifying methods in this report, but they are used repeatedly in making important distinctions. The methods reviewed here have been classified on a historical basis into two broad groups: those which developed early and were originally very specialized; and those which are recent and are more or less eclectic. This plan had three distinct advantages. It was reasonably simple and raised few controversial issues. It was sufficiently broad in scope to include the methods used in teaching reading of letter-sound, syllabic-sound, or word-concept characters.

EARLY SPECIALIZED METHODS OF TEACHING READING

Early methods of teaching reading[3] may be divided into two groups: those which approach the teaching of reading through initial emphasis on the elements of words and their sounds, as aids to word recognition; and those which approach it through the use of words or larger language units, and lay initial emphasis on the meaning of what is read.

1. Simon, Dr. Th. *Pédagogie expérimentale.* Armand Colin, éditeur, Paris, 1924, pp. 101-2.
   Dottrens, Robert and Margairaz, Emilie. *L'apprentissage de la lecture par la méthode globale.* Paris, Neuchâtel, Delachaux et Niestlé S.A., 1947, p. 10. (*Actualités pédagogiques et psychologiques.*)
   Lamport, Harold Boyne. *A History of the Teaching of beginning Reading.* Ph.D. Dissertation, Department of Education, University of Chicago, 1935.
   Zarrili, Humberto and Abadie Soriano, Roberto. *Metodología de la lectura: su evolución desde el deletreo hasta la globalización.* Montevideo, 1946, pp. 10-13.
2. Twelfth International Conference on Public Education, Geneva, 1949, *The Teaching of Reading.* Paris, Geneva, Unesco, International Bureau of Education, 1949.
3. Wide use has been made of the findings of Harold Boyne Lamport, reported in his doctoral dissertation, *A History of the Teaching of beginning Reading.* Department of Education, University of Chicago, 1935, which was prepared under the writer's supervision.

METHODS WHICH LAY INITIAL EMPHASIS ON ELEMENTS OF WORDS AND THEIR SOUNDS

Generally speaking, these methods antedated all others. They are based on the assumption that the teaching of reading should begin with a mastery of the elements of words, namely, letters or syllables. As these elements are learned, they are gradually combined into larger language units, namely, syllables, words, phrases and sentences. Through the use of graded exercises, skill is developed in recognizing new words in unfamiliar contexts.

These methods are defended on the ground that by learning the elements of words and acquiring skill in combining them into larger units, pupils develop accuracy and independence in word recognition and become acquainted with the form and structure of the language, with the result that much time is saved later on. But they have been much criticized. If the elements of words are introduced at the start, the child's natural mode of learning is disregarded. A second weakness is that the teaching of reading is treated as a highly specialized procedure, largely dependent on logical considerations. The subject matter is not related directly to child interests, to other classroom activities or language arts. Both the content and the methods are imposed by the teacher. Again, so much attention is paid to word elements and new words that other essential aspects of reading are neglected and pupils fail to acquire an interest in reading for pleasure or information. They also develop very slowly, if at all, in span of recognition and in ability to read fluently for meaning.

Methods starting from word elements have been classified into three main groups: 'alphabetic methods', in which the names of letters are used in the attempt to recognize and pronounce words; 'phonic methods', in which the sounds of letters or groups forming phonograms, are used; and syllabic methods, in which the sounds of oft-recurring syllables are used.

The Alphabetic Method

The alphabetic method was almost universal from the early days of Greece and Rome until the end of the middle ages. It persisted well into the nineteenth century in many countries, and even longer in others. It assumed that familiarity with the forms and names of letters helped the pupil to recognize and pronounce words. In learning such a word as *cat* for example, the pupil repeated the familiar letters *c* - *a* - *t*, until he sensed the pronunciation of the word, or until he was told what it was. This method has often been called a spelling method. During the course of its development, it became highly organized and was given a logical basis—as in Noah Webster's *Speller*, which was used to teach reading in America and of which 80 million copies were sold, during the century following 1783.

On these principles,[1] the pupil first learned the names of the letters, both large and small, in their alphabetic sequence. Two-letter combinations, such as *ab*, *ib*, *ob*, were then spelled and pronounced until they were well known, and then three-, four-, and five-letter combinations, forming either nonsense units, syllables, or words. The syllables and words were then combined into phrases and short sentences. Mastery was attained chiefly through repetition. Only after considerable practice of this type was real reading begun. Even then, emphasis was laid on the recognition of new words rather than on the grasp of meaning.

1. Judd, Charles Hubbard. *Reading: its Nature and Development*. Chicago, Illinois, The University of Chicago Press, 1918, p. 1.

The chief objection to the alphabetic method is that the sounds of the names of the letters do not always indicate the pronunciation of words. Menzel[1] maintained that this method helped the pupil 'incidentally, wastefully and ineffectively'. Anderson and Dearborn[2] considered that pupils either guessed the word from the sounds of its letter names or learnt it after the teacher had pronounced it. Practically all critics agree that the content of early reading lessons had little bearing on child interests and that the arduous and meaningless repetition often established a permanent dislike for reading. Furthermore, since the child learned and repeated the letters before he had recognized their function as component elements of words, he was not able to apply them properly.

As the validity of many of these criticisms was recognized almost two thousand years ago, the alphabetic method was improved by devices to interest the child and encourage wholehearted effort. According to Huey,[3] Quintillian, in A.D. 68, suggested that the child be given blocks and tablets containing the letters and that he trace with a pen the forms of the letters as engraved on ivory tablets. Basedow (1723-96), who believed that the child should learn to read through play activities, had the idea of making gingerbread letters, which the child should be permitted to eat as soon as he had learned them. Letters were also associated with pictures of words beginning with those letters, such as *a* for apple. Letters were taught in small groups and words containing them were introduced immediately afterwards. Other means were devised for combining letters into syllables and words, and words into sentences.

However, as knowing the forms and names of the letters was of little help in recognizing new words, the alphabetic method was gradually supplanted by more effective methods and is rarely used today.

The Phonic Method

The phonic method was adopted owing to the fact that the sounds of the letters, not their names, when uttered rapidly, produce the word. It was also assumed that once these sounds had been learned, they should be combined into syllables and words, then into larger language units. The method is most effective for languages in which the forms and sounds of letters invariably correspond. When used for languages which are not purely phonetic, some of the letters are modified, or diacritical marks indicate the appropriate sounds.

In the beginning, the sequence of teaching activities in the phonic method was based largely on logical considerations. In the initial stage the forms and sounds of the letters were taught—as a rule, the vowels first. The teacher wrote the letter *a*, for example, on the blackboard, or pointed it out on a chart or in a primer, and as he did so, he gave its sound, often calling attention to the movements required to pronounce it. The sound was then repeated several times by the pupil and other vowels were introduced and their sounds repeated several times so that the association between the sound of the letter and its form was established.

After the vowels, the consonants were introduced in some prescribed order and their sounds combined with each of the vowels (see Figure 4, page 94). The recognition and pronunciation of series, like *la, le, li, lo, lu*, were practised, then com-

1. Menzel, Emil W. *Suggestions for the Teaching of Reading in India*. Madras, Oxford University Press, Indian Branch, 1944, p. 49. (*Teaching in India* series No. X.)
2. Anderson, Irving H. and Dearborn, Walter. *The Psychology of Teaching Reading*. New York, The Ronald Press, 1952, p. 205.
3. Huey, Edmund Burke. *The Psychology and Pedagogy of Reading*. New York, The Macmillan Co., 1912, p. 241.

binations of two, three, four or more letters. Finally syllables were combined into words, and words into phrases and sentences. Pupils often went through two or more primers of such exercises before actual reading began. This procedure is still followed in many countries.

One of the chief advantages of the phonic method is its use of the sounds of letters, or phonograms, in word recognition. Their value in this connexion is admitted by most authorities in reading. Huey, for example, observed that the phonic method develops ability to sound the letters of any new word and to pronounce it by blending these sounds.[1] Anderson and Dearborn say that if a person pronounces the sounds of the letters correctly 'and is able to blend them, the result is that he actually says the word'.[2] Other advantages claimed for the method are that it is logical and economical, carefully graded and complete with respect to the phonetic elements, and easy to apply.

However, many limitations have been pointed out. The first is that consonants can be accurately sounded only in combination with vowels. When pupils utter them separately, other sounds are often added, and then when they come to pronounce the consonants in words they are confused. Nor is the phonic method practicable in all languages. Menzel[3] has emphasized the fact that in the languages of India, which are highly phonetic, it can be applied readily. But in those which are only partly phonetic, the sounds of letters must be supplemented by other aids to word recognition, such as meaning, word-form clues, structural analysis of words and the dictionary.[4]

Again, the phonic method, while focusing attention on word recognition, fails to develop the activity to understand what is read. Dunville said many years ago: 'In the early stages of the phonic method, when practically every word has to be deciphered, the attention of the child is so occupied with this process that little, if any reading (in the sense of comprehension) can occur.'[5]

Schonell, too, considers that it 'interferes with the idea of grasping words, phrases and sentences as meaningful language units'.[6] It has often produced 'word readers'. Another objection is that the learning procedures are often very formal, consisting of the repetition of meaningless elements, and they create dislike of reading.

In response to such criticisms, many changes have been introduced—some designed to make the learning of the sounds of the letters more interesting. (Four of these innovations will be described briefly and illustrated in the appendix to this chapter.[7])

1. The letters in the first primer are accompanied by pictures representing animals or people in familiar situations. The sound normally made in such a situation is similar to that of the letter to be learned (see Figure 5, page 95). As a rule, this procedure quickens interest and focuses attention on the sound. It has often been objected that the sound illustrated in the picture is not always the same as that of the letter when it figures in words.
2. The letters are accompanied by pictures representing words, of which the initial sound is the same as that of the letter. This technique has been used for hundreds of years. It is often called the 'key-word' method. As the word is pronounced,

1. Huey, op. cit., p. 266.
2. Anderson and Dearborn, op. cit., p. 208.
3. Menzel, op. cit., p. 48.
4. Gray, William S. *On their own in Reading*. Chicago, Scott, Foresman and Company, 1948, 268 p.
5. Dunville, Benjamin. 'The Methods of Teaching Reading in the Early Stages.' *School World*, Vol. XIV, November 1912, p. 410.
6. Schonell, Fred J. *The Psychology and Teaching of Reading*. London, Oliver and Boyd, 1946, p. 47.
7. Many examples will be found in *The Construction of Literacy Primers for Adults*, by D. K. Neijs. South Pacific Commission, Noumea, New Caledonia, 1954, 72 p.

attention is directed to its initial sound. This, in turn, is associated with the letter printed in the primer (see Plate VII). This procedure has the advantage of arousing interest and directing attention to the sound of a given letter as it is pronounced in combination with other letters and it does not produce a distorted pronunciation as often happens when letters are sounded in isolation. A frequent criticism is that the illustrations do not always represent familiar things.

3. To supplement the key-word method, the form of the letter is sometimes drawn over the thing the key-word represents, in such a way that the letter appears to be derived from the picture (see Figure 6, page 96). This is one of the techniques used widely by Dr. Frank Laubach. It is based on the assumption that many vivid aids to memory are required for the learning of new letters and sounds. Nevertheless, the technique is criticized on the ground that the resemblance between the form of the letter and the part of the object over which it is drawn is sometimes far-fetched and therefore of little value.
4. The letter to be learned is presented both visually and orally in connexion with words. It is often accompanied by several pictures representing words whose initial sound is the same as that of the letter. In this way the learner is acquainted with the sound of the letter as it occurs in several words. The letter to be learned may also be presented visually as it occurs in various parts of different words (see Plate VIII). As attention is directed to different words, both form and sound associations are brought out. The form of the letter is made more striking by being printed in colour. However, unless one of the words represented is stressed, the plan may lose the advantage which attaches to the key-word method, and attempts to learn both the form and sound of the letter in so many connexions at once may be distracting.

More colourful and attractive primers and readers whose content is based on the interests of children have also been put out. Furthermore, the order in which the elements are introduced has been modified in the light of detailed studies of their frequency, differences in form that facilitate or interfere with recognition, similarities in meaning, etc. Because of such changes, the term 'psycho-phonetic' has been adopted in many centres to distinguish the improved phonic methods now used from the highly formal phonic methods of earlier times.

Various plans have been adopted, too, to direct attention from the beginning to the meaning of what is read. Words and sentences are introduced as soon as a sufficient number of phonetic elements have been learned. Some recent phonic primers, after the first page or two, consist largely of phrases and sentences. The meaning of what is read is emphasized almost as much as the mastery of word recognition.

In some languages it is possible to begin to read interesting sentences as soon as the sounds of a relatively small number of letters have been learned, Stolee[1] found that the letters *a*, *e*, *c*, *i*, *y* and *m* comprised 65 per cent of the total letter usage in the Malagasy language in Madagascar, and that it was quite possible 'to write interesting and connected sentences with those letters only'. The pupil was actually able to read something he could appreciate and understand as soon as he had learned six letters. With three more letters, *t*, *h* and *r*, 80 per cent of the total letter usage of the language was included and the number of words that could be recognized was greatly increased. As new words were presented in numerous combinations, pictures were used to facilitate learning, and far greater emphasis was laid than formerly on the meaning of what was read.

1. Stolee, Peter B. 'Constructing a Primer in a Phonetically Written Language'. Mimeographed appendix to his *Fanalahidim-bakiteny*. Fort Dauphin, Madagascar, La Mission Luthérienne, 1949.

Hence, although the phonic method was very formal at first, it has undergone many changes designed to increase its appeal, vitalize its content and make it more effective. The techniques used have become more and more analytic-synthetic in character and greater emphasis has been laid on the meaning of what is read. As current phonic methods vary in many respects, each one must be evaluated critically in the light of all its characteristics.

The Syllabic Method

The syllabic method[1] differs from other synthetic methods in that the key units used in teaching reading are syllabic units. As syllables are introduced and learned, they are combined to form words and sentences. The use of syllables is preferred to that of letters because, as practically all phoneticians agree, many consonants can be pronounced accurately only in combination with vowels. The method is admirably suited to Spanish and Portuguese, certain vernacular languages of Africa, and other languages of simple syllabic structure. Its basic principles apply also to the teaching of syllabaries, as in Japanese. The method has also been increasingly employed during recent years for languages which are not highly syllabic.

When it is used for alphabetic languages, before syllables are presented, the form and sounds of some or all of the vowels are often introduced by means of words and pictures, being pronounced first as part of a word or syllable, and later in isolation (see Figure 7). If primers prepared on formal lines are used, the syllables are learned by repeated exercises in recognition and pronunciation. Better types of primers provide pictures to build up meaningful associations, and interesting exercises. In some languages many of the first syllables learned are words and meaningful reading material can be introduced right from the start. Each lesson after the first one may be followed by exercises comprising sentences built up of words and syllables that have already been introduced (see Figure 8). These help the pupil to decipher the sentences. Or again, the introduction of syllables and words may continue for some time before the reading of sentences begins.

The arguments for and against the syllabic method have been summarized by George W. Cowan, Summer Institute of Linguistics, Mexican Branch, in response to an inquiry sent out by Unesco. Those favourable to the method are:

It presents a logical arrangement of material.

It provides a method for attacking new words.

It is easy to teach; the advanced pupils can teach the others.

The lessons can be prepared with a minimum knowledge of the language.

The entire course of basic instruction can be included in a relatively small amount of material.

Teachers who have taught only by the syllabic method gladly co-operate in teaching by this method. They often resist any innovation and influence their community against it.

Educationists in areas where syllabic methods are used also affirm that it is admirably adapted to the logical demands of the adult mind. As soon as a prescribed mode of learning a new syllable has been acquired, the adult is able to learn other new syllables with a minimum of guidance by means of carefully prepared, self-teaching exercises.

The chief arguments against the use of the method are:

It puts too heavy a load on the pupil's memory in the early stages, unless he is taught to recognize syllables in words at the time he first learns them.

1. Gudschinsky, Sarah. *Handbook of Literacy*. Rev. ed. Norman, Okla., Summer Institute of Linguistics, University of Oklahoma, 1953, 85 p. processed.

If too many purely syllabic charts are used at the beginning, the pupil may lose interest before he begins to read sentences and stories.

If the materials are too difficult at first, or advance too rapidly, the pupil may become a mechanical 'word caller' unable to understand all the words that he can pronounce.

The method is not suitable for languages with a complex syllable structure, or in which there are few one- or two-syllable words that can be illustrated by pictures.

The foregoing criticisms, though they do not affect the principle on which the method is based, question certain of its aspects, such as the excessive emphasis laid on word recognition and the failure to provide opportunity for thoughtful reading. Moreover, whenever the syllabic method concentrates at the beginning on the elements of words, it is open to the same criticism as the phonetic method.

In the 'psycho-phonemic method',[1] which is a special adaptation of the syllabic method, the sounds of letters and syllables are taught through comparisons of words. According to Wallis and Gates,[2] the development of good habits of recognition can be greatly facilitated by the grouping of syllables in similar patterns, or 'the teaching of *new elements in terms of the old and familiar*.... The introduction of new syllable patterns should be gradual and systematic, because a new combination of phonemes in a new syllable pattern is as new and difficult for a beginner to learn as *a new symbol*. Furthermore, various syllable patterns presented simultaneously, either singly or in words, with no particular reference to frames or a systematic introduction of patterns, distort the learner's psychological patterns of memory which are a strong and insistent force'. The order in which words are introduced is determined by the frequency and usefulness of their component parts. Because words are the basic units in this method, it is on the borderline between a method which stresses the elements of words and one which stresses meaningful language units. It has been described here because when words are compared attention is directed chiefly to syllables as the basic units in word recognition.

METHODS WHICH EMPHASIZE MEANING FROM THE BEGINNING

The second group of highly specialized methods of teaching reading are, on the contrary, based on the assumption that meaningful language units (words, phrases, sentences) should be the point of departure. When these units have been recognized as wholes, attention is directed, in turn, to smaller and smaller elements. The extent to which words are analysed varies widely. This procedure is often referred to as the 'global method'. Since the psychological process by which larger units are broken down into smaller units is known as analysis, methods belonging to this group have often been called 'analytic methods'. It should be added that as soon as word elements are known, they are used in recognizing new words, so both analysis and synthesis play their part.

At least two groups of arguments have been advanced in support of this approach. Since reading is a thought-getting process, use should be made from the beginning of meaningful material, with emphasis on the development of a thoughtful reading attitude. Learning to read thus becomes an interesting, enjoyable and rewarding

1. Townsend, Elaine E. 'Accelerating Literacy by Piece-meal Digestion of the Alphabet.' *Language Learning*, Vol. I, July 1948, pp. 9-19.
2. Wallis, Ethel E. and Gates, Janet B. *Outline for Primer Construction*. Glendale, California, Summer Institute of Linguistics, 1948, p. 5.

process and progress is greatly hastened. Then again, as psychologists[1] have demonstrated that children recognize things and ideas as wholes, more or less vaguely at first, proceeding gradually to the recognition of details, this procedure follows the natural mode of perception.

The chief criticism of this approach is that so much attention is directed to the development of the attitudes and skills required for getting the meaning that word recognition is often neglected. Several closely related criticisms refer to weaknesses in the method as applied by some teachers. For example, many teachers neglect to develop word recognition skills[2] so long that pupils are seriously retarded. Others practically omit training in word recognition on the assumption that pupils should acquire the necessary knowledge and skills largely through their own unguided development. Another disadvantage is that teachers who have not been trained in analytic methods find them difficult to apply. (Similar difficulties are encountered, however, by teachers trained in analytic methods who are asked to teach by synthetic methods.)

As enthusiasm for analytic methods grew, differences arose as to whether the word, phrase, sentence or story was the most effective unit to start with, and all these language units have been used to identify particular methods of teaching reading. Each of these methods will now be described and its advantages and limitations pointed out. They apply to practically all languages including those that use word-concept characters, like Chinese, or a combination of word-concept and syllabic sound characters, like Japanese.

The Word Method

In this method words are usually presented in a meaningful setting and learned largely by the 'see-and-say' method during the first few lessons. This procedure is based on the assumption that each word has a characteristic form by which it can be remembered. Various devices are used to facilitate learning. In some parts of the world the learner repeats aloud sentences or verses containing the new words as he looks at them, until they are known at sight. As an aid in establishing meaningful associations, pictures often accompany the words in primers. To help slow learners, the tracing of words, often called the 'kinaesthetic method'[3] is used. As new words are learned they are used repeatedly in phrases and sentences. Through careful planning of the order in which words are introduced, much practice in intelligent reading can be provided early.

At the same time, attention is directed to details of words, such as syllables[4] and letters and their sounds. These elements are then used in training pupils to recognize and pronounce new words independently and accurately. The so-called 'method of the normal words'[5] is a special adaptation of the word method which introduces into early reading activities a limited number of words that include all

1. Decroly, O. 'Le rôle du phénomène de globalisation dans l'enseignement', *Bulletin annuel de la société royale des sciences médicales et naturelles*. Brussels, 1927, pp. 65-79.
   Dottrens and Margairaz, op. cit., pp. 9-41.
   Seegers, J. E. *Psychologie de l'enfant normal et anormal d'après le Dr. O. Decroly*. Brussels, C. Stoops, 1948, p. 261.
2. Seegers, op. cit.
3. Fernald, Grace M. and Keller, Helen. 'The Effect of Kinaesthetic Factors in the Development of Word Recognition in the Case of Non-readers', *Journal of Educational Research*, Vol. IV, December 1921, pp. 355-77.
4. Wallis, Ethel E. and Gates, Janet B. *Outline of Primer Construction*, op. cit., p. 5.
5. Basurto García, Alfredo. *La Lectura: principios y bases para su enseñanza y mejoramiento en todos los grados de la escuela primaria*. México, Luis Fernández G. (1953). pp. 92-3. (*Ensayos pedagógicos*, II.)

the basic sounds of the language. This plan ensures early mastery of all phonetic elements. In reading for meaning and in recognizing new words, both synthesis and analysis are involved. If the word method is not accompanied by the analysis of words into their elements, it should not be classified as an analytic method.

The word method was adopted in revolt against the formal methods which prevailed in earlier times. Comenius is often given credit for its introduction. In his *Orbis Pictus*, published in 1657, he advocates the word method, arguing that when words are presented along with pictures representing their meaning they can be learned quickly without the ordinary 'tedious spelling' which is a 'troublesome torture of wits'. In our own day, the word method has been supported by many noted specialists, such as Jacobet, Horace Mann and Decroly, on the grounds that: individual words are basic units of both thought and recognition; attention in reading is focused from the beginning on the meaning of what is read, thus cultivating a thoughtful reading attitude and keen interest in reading as a source of pleasure and information; the learning of words as wholes before their elements are singled out corresponds closely with the way most children and adults normally learn visual forms.

In the beginning, the content of primers and readers based on the word method was usually very uninteresting, and mastery was gained largely through the repetition of words in sentences which had little significance to the learner. To overcome these limitations, the authors of primers wrote more interesting material in an attractive style, and illustrated it in colour. Various devices were introduced to facilitate learning. For example, word cards were made to develop a sight vocabulary and to build sentences. Cards with a word printed on one side and an appropriate picture on the other were used for self-corrective practice. Children who had great difficulty learnt words by the tracing, or kinaesthetic, method. Work-books were prepared with many interesting exercises to develop word recognition and comprehension. Thus, step by step, important changes were made in the materials and teaching procedures.

One of the most frequent criticisms of the word method is that it often fails to develop the necessary accuracy and independence in word recognition, and therefore results in much retardation in reading. Such criticisms were discussed at length in *The Times Educational Supplement*.[1] According to Whitehead,[2] the main issue is not whether phonics should be used as an aid in word recognition, but when such training should begin. Word analysis is often delayed, or even omitted altogether, by many teachers, reliance being placed on the intuitive insight of the pupils for progress in the ability to identify and master word elements. However, though brighter pupils may be able to make the necessary distinctions between words and acquire skill in word attack without much help, most pupils require carefully planned guidance.

The Phrase Method

The phrase method is based on the assumption that phrases are more interesting than words and place added emphasis on meaning. It has also been recommended in the belief that since good readers recognize groups of words at each fixation of the eyes, the phrase method should foster rapid growth in efficient reading. The

1. Diack, Hunter. 'First Steps in Reading: Phonics the Key', *Times Educational Supplement*, 7 May 1954, No. 2036, p. 441.
   Gagg, J. C. 'First Steps in Reading: Present Practice', op. cit., 14 May 1954, No. 2037, p. 477.
2. Whitehead, Frank, 'Rival Reading Methods: Question of Timing', op. cit., 21 May 1954, No. 2038, p. 503.

validity of this assumption has been questioned by Anderson and Dearborn.[1] Through an analysis of photographic records of eye-movements, they found that good readers do not fix their eyes on phrases; fixations occur at more or less regular intervals along the lines. The recognition of thought units—that is, of groups of words that form phrases—is a mental, not visual process.

In this method, a phrase is often written on the blackboard as it comes up in class. Or again, it is selected and written on the blackboard as a new unit to be learned. In either case, it is looked at carefully by the pupils, repeated several times, and compared with previously learned phrases. By repetition, the pupils gradually learn to distinguish the new phrase from others. Familiar words within the phrase are then noted and new ones learned. The elements of selected words may then be studied, as in the word method, and applied in the recognition of new words.

The phrase method has all the advantages and limitations of the word method. Whereas it places added emphasis on meaning, it is an uneconomical method of word mastery. For this reason it has fallen into desuetude.

The Sentence Method

The sentence method represents a third stage in the evolution of analytic methods. The arguments in its favour have been summarized by Huey as follows: 'The method urges that the sentence, and not the word or letter, is the true unit in language, expressing whole thoughts which are the units in thinking. If the sentence is the natural unit in language, it is the natural unit in reading as in speaking. As the word is not the mere sum of letter-sounds and word names, neither is the sentence merely a sequence of word sounds and word names. It has a distinctive total sound and appearance and meaning indicated plainly in the way it is spoken when its meaning is felt. It is read and spoken naturally only when the total meaning is prominent in the consciousness of the reader or the speaker.'[2]

In teaching by the sentence method without the use of a primer, attention is first directed to some object or activity of interest to the class. As the pupils engage in conversation, they make many interesting statements about it. One of the statements is then written on the blackboard by the teacher and read 'naturally' —that is, 'with expression'—since it represents an idea that has meaning to the reader. The pupils are then directed to find important groups of words within the sentence, and specific words within each group. After the first lesson or two, they are aided by the recurrence of familiar words. Through various types of exercise, the new words are learned so well that they can be recognized at sight. Sooner or later, attention is directed to the elements of the new words. Knowledge of these elements is then used in developing ability to recognize new words independently. Figure 9 illustrates the use of the sentence method in a primer. The various techniques used in the sentence method are discussed in detail by Luke[3] and Jaggar.[4]

Several advantages attach to the sentence method. It is in keeping with the global or 'gestalt' concept of learning. It stresses the meaning of what is read and thus cultivates an intelligent reading attitude and keen interest in reading. Schonell points out that 'one of the great values of the sentence method lies in the help it offers to the pupil from the context and from the continuity of meaning that can be

1. Anderson and Dearborn, op. cit., p. 238.
2. Huey, op. cit., p. 273.
3. Luke, Edith. *The Teaching of Reading by the Sentence Method.* London, Methuen & Co., Ltd., 1931, 82 p.
4. Jaggar, J. Hubert. *The Sentence Method of Teaching Reading.* London, The Grant Educational Co., Ltd., 1929, 119 p.

embodied in the material'.[1] According to Anderson and Dearborn, it helps to 'prevent word-by-word reading'.[2] The method also develops accuracy and independence in word recognition by breaking down each word into its syllabic and letter elements and attaching appropriate sounds to them. This is not regarded as the chief aim but rather as an essential aid in developing independent, thoughtful readers. It is therefore introduced either systematically from the beginning, or gradually as the need arises for broader understanding of word elements and increased skill in their use.

At least two criticisms of the sentence method deserve emphasis. Formerly, the sentences used as the basis for teaching were not related to the immediate interests and experiences of the pupils and they often failed to arouse meaning associations which would contribute to rapid, effective learning. During recent years this difficulty has been largely overcome through a better selection of content and vocabulary. The second criticism is that in actual practice so much attention is paid to the meaning of what is read that the basic skills of word recognition are not properly developed, or their development is too long postponed.

If the sentence method is well applied, it lays the foundation of practically all the attitudes and skills required for good reading—a thoughtful reading attitude, a clear grasp of meaning, accuracy and independence in word recognition, intelligent reaction to what is read, application of the ideas acquired, and interest in learning. When the reader advances beyond the initial stages, he is not faced with the difficulty of adjusting himself to a new set of reading attitudes; instruction develops the attitudes and skills already implanted, improving and extending them. This ensures uninterrupted growth and makes for economy and efficiency.

The Story Method

The story method is an expansion of the sentence method, using a sequence of sentences in the form of a story as the unit of instruction in early reading activities. As stories have a universal appeal for children, it is claimed that the story method ensures keen interest in reading activities, thus overcoming some of the disadvantages of the word and sentence methods. It also provides a more complete unit of thought than the sentence, because it carries the reader through an entire series of events which have a beginning, middle and end. Hence, it not only emphasizes meaning, but trains pupils to anticipate and follow a sequence of ideas. Because of its very nature, the story provides much greater opportunity for discussion and the understanding of relationships than the sentence. It also inculcates a love of reading and a taste for good literature.

Interest in what is to be read is aroused when the teacher tells the pupils the story in a modified version. Its details are then discussed in the order in which they were related until they are fairly well known by the pupils. Understanding and appreciation may be further developed by dramatization. Attention is then directed to the story as written on the blackboard or as printed in a book. As the pupils already know the sequence of events, they soon learn to identify individual sentences within the story. Each sentence is picked out repeatedly until it is easily recognized. In the story method, techniques similar to those of the sentence, phrase and word methods are employed; important groups of words are first identified within sentences; individual words are identified within phrases; elements of selected words are studied; and the knowledge of these elements is applied in the recognition of new words.

1. Schonell, op. cit., p. 50.
2. Anderson and Dearborn, op. cit., p. 243.

One of the chief criticisms of the story method is that pupils tend to rely largely, when reading, on their memory of the sequence of events in a story, as previously related, rather than on the recognition of words and, consequently, their reading is often inaccurate and incomplete. When attempting to read new stories, they resort to guess work and imagination. Such readers depart from the text and supply whatever comes to mind or seems appropriate. This can be avoided by means of well balanced emphasis on thoughtful, careful reading and word recognition.

The story method, like the sentence method, lends itself admirably to emphasis from the beginning on all the basic aspects of efficient reading. It is in keeping with the global concept of learning forms. If well taught, it lays the foundation for continuous development towards higher levels of competence in reading. As a rule, the exclusive use of story material is better adapted to children than adults, though the use of some stories in early reading materials for adults has proved very effective in many centres. Even with children, other types of material should be used early in the primary grades to ensure the development of wide reading interests and increased capacity to read different kinds of material for different purposes.

In the foregoing discussion, the strengths and weaknesses of the word, phrase, sentence and story methods have been pointed out. As improvements have been made in methods of teaching reading, the procedures that formerly characterized the word, phrase, sentence and story group methods have been modified in many respects and it is impossible to evaluate any of these as a unit. In fact, most recent primers for either children or adults do not follow any one of them exclusively. Words, phrases, sentences of longer units are used to introduce reading lessons according to the needs of the occasion.

RECENT TRENDS IN METHODS OF TEACHING READING

The discussion thus far has drawn attention to a series of specialized methods of teaching reading which diverged sharply at their origin in two respects: the nature of the language units used in the first reading lessons, and the basic mental processes concerned. The changes made in these methods were designed to overcome weaknesses that had been revealed through their use, to meet theoretical objections, and generally to facilitate ease and rapidity in learning. Each of the various methods has become highly diversified thereby.

During recent years even greater changes have occurred in response to the ever-increasing demand for improved methods,[1] changing conceptions of the aims of schooling, and the results of experience and research. Although it is very difficult to classify them, they will be considered, for the purpose of this discussion, under two headings, namely 'the eclectic trend' and 'the learner-centred trend'. However, these trends are not mutually exclusive. Some methods which combine the use of techniques that formerly characterized other methods are also, to some extent, learner-centred, and some which are predominantly learner-centred also make use of various specialized techniques of teaching.

THE ECLECTIC TREND

The eclectic trend was mentioned in the recent report on reading by the International Bureau of Education, Geneva, which classified current methods into the 'synthetic',

1. Laubach, Frank C. *Teaching the World to Read.* London, United Society for Christian Literature, 1948, Chaps. 3 and 4.

the 'analytic', and the 'analytic-synthetic'. The analytic-synthetic method, it said, '... entails the selection of carefully graded words, sentences and simple passages which the children analyse, compare and synthetize more or less simultaneously right from the beginning, and in doing so become acquainted with the elements of language, in the desired order, while learning the mechanics of reading'.[1]

To illustrate the use of analysis and synthesis in a specific teaching procedure, brief reference was made to an early lesson in a primer widely used in Brazil (see Figure 7). After a class has reviewed the top line in the example, attention is directed to the word *bola* and the picture accompanying it. Through association of word-form and picture, the word, *bola*, is identified. The word is then pronounced slowly and divided into its two phonemic elements *bo* and *la*. The next step is to recognize the five syllables composed of *b* and each of the vowels. Analysis is required to isolate the sound of *b* from *o*, and synthesis to combine it with the other vowel sounds. The word *lata* is taught similarly, the sounds of both *l* and *t* being paired with each of the vowel sounds. The next step is the recall, through visual analysis, of the various syllabic units previously presented, and their combination in the recognition of specific words. The final step consists of reading the last line on the page. Identifying the various syllabic elements brings in analysis, while combining them into words and pronouncing them brings in synthesis. Thus almost continuous use is made of both analysis and synthesis throughout the lesson.

It would be impossible to refer to each of the many eclectic procedures that have grown up. Those of special significance combine into a single teaching programme methods of encouraging a thoughtful reading attitude and a clear grasp of meaning and methods of developing skill in word recognition. The following example is taken from a report which the Department of Education of the Thai Government submitted to Unesco in 1949: 'In about two weeks' time we had developed a lesson book of nine lessons, each one in two parts. The first part of each lesson utilizes the direct method, teaching the words in very well known proverbs, while the second part teaches the letters found in those words, and combines the letters to form new sentences. For example, Lesson 1 begins with a very common Siamese proverb, "nai nam mi pla, nai na mi kau", (in the water are fish, in the fields is rice). The illiterate, knowing the proverb by heart, can "read" it, and various restatements of the proverb, once it is repeated by the teacher. Part 2 of Lesson 1 then teaches the shape of six consonants used in the proverb by visual association with objects for which those consonants are also the names. The four vowels used in the first proverb are taught by associating them with the shape of the face while saying the vowels. Then follows a page of new simple sentences made up of combinations of the consonants and vowels, the first real phonetic reading the illiterate does, right in the first lesson.'[2]

Eclectic methods make possible the attainment of broader objectives in teaching reading than the highly specialized methods referred to earlier. The eclectic trend, which represents an attempt to overcome the limitations of the specialized methods, is very promising. Through the choice of appropriate teaching techniques, a programme of reading instruction can be organized to develop all the attitudes and skills essential in meeting current needs among both children and adults.

1. Twelfth International Conference on Public Education, Geneva, 1949. *The Teaching of Reading.* Paris, Geneva, International Bureau of Education, 1949, p. 24.
2. Laubach, Frank C. *Technical Problems peculiar to the Siamese Alphabet.* Bangkok, Teachers' Institute Press, 1949, bilingual edition: Siamese-English, p. 1.

THE 'LEARNER-CENTRED' TREND

The underlying principle of the 'learner-centred' trend is that the development of the learner is the main purpose of schooling and that the mastery of subject matter and the development of skills are not the chief goals. Since progress in reading is regarded as an important aspect of individual development, the reader's interests, immediate concerns, previous experiences, special aptitudes and deficiencies are given first consideration, both in the content and the methods of teaching.

Learner-centred procedures may be classified most readily according to the nature of the reading matter, which is of three types; author-prepared, learner-teacher conceived, or elaborated as part of an 'integrated instructional' programme. Methods are usually eclectic, but vary in detail according to the kind of reading matter.

Author-prepared Reading Matter

Sets of readers prepared by an author are used far more among both children and adults than anything else. Compared with most of the primers published in former years, they are more colourful and attractive and their content is more closely related to the interests of the age groups taught. The content of primers for children is organized in the form of simple stories or episodes about the same characters (see Plate IX); and primers for adults deal with adult experiences and needs. These so-called 'basic readers' are accompanied, as a rule, by supplementary teaching devices, such as charts, word and phrase cards, work-books, tests and teachers' guide-books. Filmstrips and films based on the content of the readers are sometimes provided. The methods used can no longer be classified as a word, phrase, sentence or story method. The authors use words, phrases, sentences, or stories as the need arises and most of them agree that the analysis of these units into their elements is essential if independence in word recognition is to be acquired. They differ, however, as to the time at which word analysis should be introduced and the amount and kind of help that should be given. At one extreme, daily training is provided in word discrimination and word recognition from the beginning; at the other extreme, such training is not introduced for several weeks or months, or is given only on demand.

The main argument in favour of author-prepared primers is that they interest the learner and create favourable attitudes towards reading. On the practical side, these primers and the accompanying teaching aids conserve the time and energy of teachers.

Author-prepared materials, however, are not without their opponents, who claim first that it is impossible for an author to prepare reading matter of equal interest to many different groups and to all members of a class. Detailed studies of the common interests of children and adults have done much to overcome this difficulty. Linguists claim that authors are either not acquainted with or disregard important facts about the nature of the language and the relative importance and relationships of words and often fail to select words and to organize them in a way to facilitate learning, but linguists are apt to disregard the interests of the learner. The solution of this problem lies in the co-operation of those who are well acquainted with the type of learner for whom the material is designed and those who have a technical knowledge of the language.

At least three important trends may be observed in the methods used in teaching reading by means of author-prepared primers. To ensure adequate emphasis on all the attitudes and skills required for efficient reading, many authors select procedures

from every source possible. Furthermore, training in reading is closely related to that given in the other language arts, such as speaking, listening, writing and spelling. Finally, the training given in early reading activities lays a broad foundation for the continuous development of reading interests, attitudes and skills that will function both in later school activities and in meeting out-of-school demands.

The second trend is to use the methods of word recognition best adapted to the language concerned. Thus some readers make almost exclusive use of phonetic methods, others of syllabic (phonemic) methods, and still others use a variety of aids to word recognition, such as the context, word-form clues, structural analysis of words, phonetic analysis, and the dictionary. Others have abandoned highly specialized techniques in favour of eclectic methods.

Finally, the authors of learner-centred primers are adjusting their methods to the capacities and needs of the pupils, who are organized into groups accordingly, and individual help is liberally provided. Teachers are on the look-out for any physical, mental, social or emotional handicaps a pupil may have, and special techniques are introduced, such as tracing the forms of words, to help the slower pupil.

Learner-teacher Prepared Reading Matter

This reading matter is based on the immediate interests of the group taught and is prepared by the pupils with such guidance from the teacher as may be needed. For example, the class discusses a common experience and summarizes in a few sentences the main points. The teacher offers suggestions, changes the words or forms of expression, and then this material is used in teaching the group to read in much the same way as in the sentence or story method Dr. Rodriguez Bou[1] of the University of Puerto Rico teaching adults to read Spanish proceeds as follows:

1. Much discussion precedes specific instruction in reading in order to win the confidence of the adults, deepen their interest in learning to read and write, and increase their familiarity with the words and forms of expression to be used in the reading and writing lessons.
2. Teaching starts with the use of reading matter based on the actual experiences of the adults, and called experience units. By means of questions the teacher encourages members of the class to talk about their work. As the discussion goes forward, the teacher writes brief statements on the blackboard. The record relating to one pupil follows:

Doña Julia es cocinera	Doña Julia is a cook
Cocina muy bien	She cooks very well
Está en la escuela	She is at school
Quiere leer	She wants to read
Quiere escribir	She wants to write
Quiere expresarse bien	She wants to speak well

3. As soon as a unit has been completed, the teacher reads it as a whole, then it is read by the class in unison, and afterwards by individual pupils.
4. The statements are then recorded on a chart. Again it is read in unison and individually. During these reading activities, the unit as presented on the chart is compared with its written form on the blackboard.
5. Attention is then directed to particular sentences, which are dictated by the students, read in unison and individually from the blackboard and compared

1. Puerto Rico. Consejo Superior de Enseñanza. *Manual para la enseñanza de lectura y escritura a adultos analfabetos.* Río Piedras, Universidad de Puerto Rico, 1953, 39 p.

with the sentences on the chart. As each sentence is read, it is cut out from the chart. It is then read again and placed under its equivalent on the blackboard. As soon as all the sentences have been dealt with, they are read in a mixed order. The unit is then rebuilt from the sentences which were cut out from the chart.

6. As soon as the students can recognize the various sentences, attention is directed to phrases. After a given sentence has been reread, it is divided thus: 'Doña Julia' - 'es cocinera'. Each phrase is read and compared with the phrase on the blackboard. The same procedure is followed for each sentence. All phrases are then read in mixed order and are found on the chart. The phrases are put together to rebuild the unit and are then read.
7. Similarly phrases are broken into words and learnt as sight words.
8. The sight words thus acquired are applied in the reading of new material.

As soon as the adults have learned 50 words and a few word-identification clues, a primer is introduced. The third page of the primer which Dr. Rodriguez Bou uses, after a series of lessons based on the immediate experience of the students, appears in Figure 10.

This kind of reading matter—based on the immediate experiences of the pupils—usually elicits keen interest and hearty co-operation. As children or adults read records of their experiences, the sight of the words calls forth associations similar to those that were aroused when the original experiences occurred, and so the words are learned easily and quickly. Interest in reading is heightened too by these pleasurable early reading activities. Because the materials read have meaning, a thoughtful reading attitude is established from the beginning. Since the pupils participate in the preparation of the reading matter, their command of language increases rapidly, gains in oral expression and reading reinforcing one another. As a rule, teachers who use the method are keenly aware of individual differences and bring in every device they know in adapting teaching to the capacity and needs of each pupil.

Learner-teacher prepared reading matter has several limitations. Insufficiently trained teachers do not always choose words well, nor arrange them in sequences so as to facilitate rapid mastery. The preparing of the material in good form and its duplication demand much time and effort on the part of teachers. As soon as children or adults have learned to engage in very simple reading activities, there is a large demand for reading matter to satisfy their growing interest in reading and to provide the essential practice. Therefore most teachers who use the 'experience method' in early reading activities soon find it necessary to rely on printed matter.

Integrated Instructional Materials

As a final example of the learner-centred trend, reference is made to the methods of teaching reading by means of integrated instructional materials. Such programmes are based on a global concept of educating the child and include much more than reading and writing. Learning activities are based largely on the immediate interests of the pupils. Knowledge is acquired through related purposeful activities. General ideas and total forms are perceived first. As learning proceeds, the necessary distinctions are made and the child gradually masters details. This general procedure, it is claimed, follows the child's natural mode of learning.

A second feature of this plan is that it centres attention on a few points at a time. As the teaching of reading is related to the things studied during the day, strong motives for reading develop and the content of what is read has meaning for the pupil. Reading thus serves from the beginning to enrich experience, not just to master basic skills; moreover, all the knowledge and skills acquired during the day

reinforce each other. Since activities are varied from day to day according to pupil's changing interests, better adjustments, it is claimed, can be made to individual needs.

The reading materials used during the early stages may grow out of a common experience of interest to the pupils. In a class in Brussels, for example, one of the pupils had found a strange looking insect while playing out of doors. When it was shown to the class, everyone became keenly interested in it. Under the teacher's guidance, the insect was discussed at length. What occurred up to this point might be described as a vital learning experience about nature. Near the end of the discussion, the pupils dictated a brief story about the insect, which was written on the blackboard by the teacher. It was then read, discussed, and sentences were identified. Attention was next directed to particular words within the sentences. As they were recognized, they were combined with other words in the story to form new sentences. Later, the words in the story were also combined with words previously learned, thus providing additional practice in the recognition and use of words.

The story, which the pupils had thus prepared and read, was used in several related activities. It was written by the pupils in their notebooks, thus providing practice in writing. Each pupil then drew an appropriate picture above the story. The spelling of the new words was studied during another period, and some of the pupils went to the printing table, set the words up in type, and finally printed them. In these and other ways, training in reading, spelling, writing, oral and written language and drawing was built around a common centre of interest.

After the material for a reading lesson has been prepared and used, as indicated above, it is duplicated and each pupil is given a copy to file in his reading booklet. In many schools the pupils are asked to set each unit up in type with a small printing outfit, in the classroom. This plan familiarizes the pupils with the details of words and encourages careful work, because 'it must be accurate if it is to be read'. When printed, the lessons are usually illustrated. Plate X reproduces two pages from a booklet prepared in Geneva, Switzerland. One or more such booklets provide the main reading matter for the entire first year. As a rule, the booklets prepared by previous classes are used for supplementary reading. At the beginning of the second school year, regularly printed books are introduced.

The principles underlying the integrated plan of teaching can be applied in areas where fundamental education programmes are in progress. Reading matter can be based on the needs of either children in primary schools or adults in literary classes. For guidance in the use of this plan, the reader is referred to three sources. Dottrens and Margairaz[1] discuss the psychological principles of the global concept of teaching and give numerous examples of appropriate materials and teaching procedures. Freinet[2] discusses what he calls the natural principles of learning and ways of preparing children to participate effectively in the plan. Two points which are much emphasized are the importance of writing in early learning activities, and the utility of printing presses, magazines and exchanges as incentives to accurate work. A manual which accompanies the Dutch reading materials prepared by Evers, Kuitert and van der Velde[3] describes the global method in detail and explains how it contributes to all-round development.

The integrated plan is opposed on the grounds that it is so complex a procedure that it can be carried out effectively only in relatively small classes and by highly trained teachers, that the training given in the basic skills lacks sequence and that

1. Dottrens and Margairaz, op. cit.
2. Freinet, C. *Méthode naturelle de lecture.* Cannes (Alp.-Mar.), Editions de l'Ecole Moderne Française, 1947, 59 p., illus. (*Brochures d'Education Nouvelle Populaire,* No. 30, May 1947.)
3. Evers, F., Kuitert, R. and van der Velde, I. *Naar onze Moedertaal.* Groningen, Wolters, 1952.

restricting the programme during the first year to pupil-created materials limits the extent of reading that can be done and imposes a heavy load on teachers. Nevertheless, many of its basic principles are exerting a profound influence on the organization of teaching activities in primary schools. For example, reading is much more closely related to other classroom activities than formerly and is serving more and more as an aid to learning throughout the school day. Besides, many of the techniques devised for integrated programmes are being adopted by teachers anxious to vitalize and improve instruction in reading.

CONCLUDING STATEMENT

Whereas methods of teaching reading were once highly specialized, they have gradually lost many of their distinctive features as efforts have been made to improve their effectiveness. Two distinct trends have arisen: most of the methods now used *combine into a single programme* techniques which formerly characterized particular methods and they are also based more and more on the immediate interests of the pupil. These trends are consistent with the results of psychological studies. Experiments carried out to determine objectively, if possible, the relative merits of different methods of teaching reading will now be described.

(See also Plates VII-X)

2ª Lezione.

li, lu, lo, la, le,

il, ul, ol, al, el,

lia, ella, lui, lei,

ali, ala, elia, olio,

lello à l'olio.

elia è leale.

la lilla è là.

ei à le ali. ella à l'ala.

l'olio è là.

Figure 4. This is the second page of a primer. The five vowels were introduced on page 1 in cursive and printed form. Their sounds were practised separately and in various combinations, e.g. *ai, ie, oi, uo, ua, aio, aia, aie*. Page 2 is the first of a series of pages devoted to the consonants, which are combined with the vowels singly and together, and used in words. The number of words—and shortly sentences—increases from page to page.

Pagani, Lorensi. *Sei mesi di scuola. Metodo per l'insegnamento simultaneo della lettura e della scrittura agli adulti.* Torino, G. B. Paravie & C. (1948), 78 p.

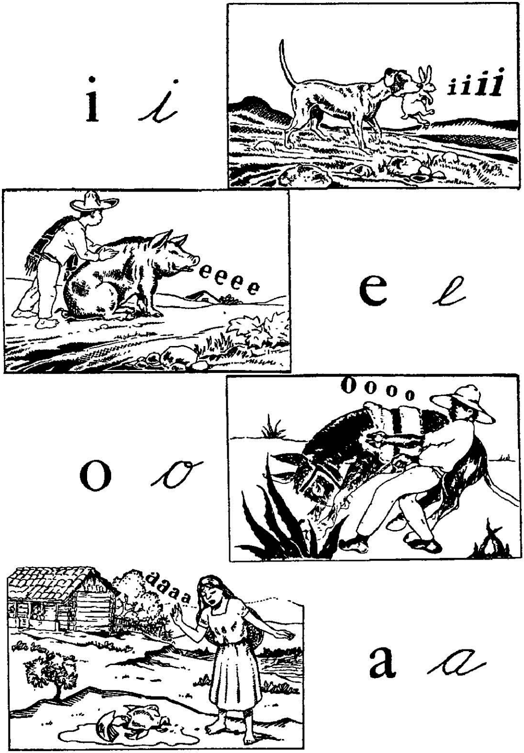
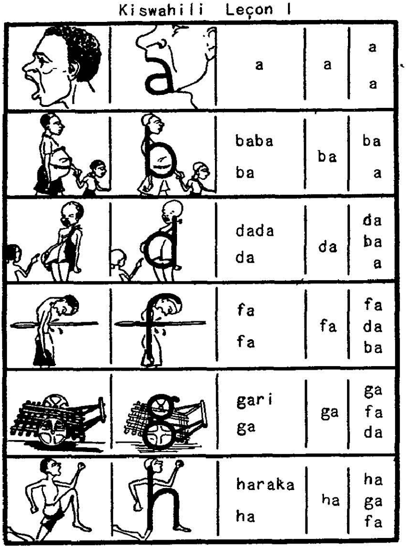


Figure 5. This is the first of 50 pages of primer text. It is designed to facilitate the learning of the forms and sounds of four vowels through onomatopoeic picture association. The script as well as the printed forms of the letters are given. The nature and arrangement of the pictures make for variety and interest.

México. Instituto de Alfabetización en lenguas indígenas. *Cartilla nahuatl-español para los monolingües del Estado de Morelos y de las regiones central y sur del Estado de Puebla.* México, D.F., Secretaría de Educación Pública, 1946, p. 8.



LESSON 1

Figure 6. This is Lesson 1 in a primer. A picture representing a word beginning with the sound of the new letter appears in the column on the far left. In the next column the letter is drawn over the picture in such a way as to show resemblance between the shape of the object and the letter. The third column presents the printed word in which the new letter figures. In the fourth column attention is drawn to the new phonetic element. Vowels are presented alone. Consonants are presented with a previously learned vowel. The fifth column is for practice in combining familiar elements.

Frank C. Laubach, *The each one teach one method (1950 supplement to Teaching the world to read) . . . a complete set of lessons in the Swahili language. . . .* New York, Committee on World Literacy and Christian Literature, 1951, p. 1.

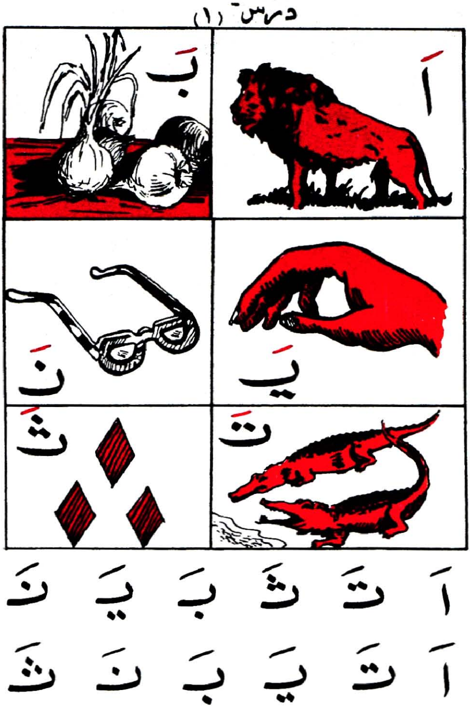


Plate VII. This is the first page of an Arabic primer. The sound of the letter is conveyed by means of a picture representing a word, whose initial sound is the same as that of the letter to be learned. As the word is pronounced, attention is directed to its initial sound and the teacher points to its printed form in the primer. In this way both visual and auditory associations are evoked. Because, in Arabic, vowel sounds are represented by diacritical marks, the mark for *a* is printed in red above the consonant presented in each picture.

Khartoum. Institute of Education. Publications Bureau. *Muftah al-Ma'refa*. Khartoum, n.d., p. 1.

Plate VIII. This is the first of 109 pages of text. The vowel *a* is introduced in printed and script form. The sound of the letter is taught by means of pictures of children and things. The word for each is printed below the picture. According to this plan, the letter to be learned (printed in red) appears in various positions in the different words.

Jauffret, Edouard. *Les belles images : méthode de lecture pour la classe enfantine.* Paris, Librairie classique Eugène Belin, *c.* 1948, p. 5.

Plate IX. In these four pages (the sixth story in the first booklet of a series of readers), their attention is centred on the events in the story. The previous five lessons introduced 10 new words in equally interesting settings. Two new words, namely, *Spot* and *come*, are introduced in this lesson, and learned through frequent use in this and the following lessons. As they appear in conjunction with words similar in appearance, attention is directed to similarities and differences in their form. Thus training in the visual discrimination of words begins early and is the prelude to training in other ways of discriminating words.

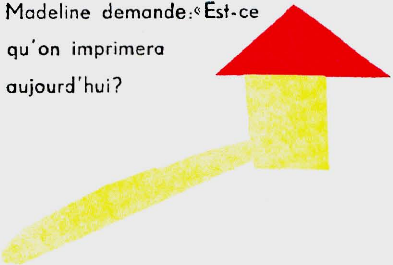
Gray, William S., Artley, A. Sterl and Arbuthnot, May Hill. *The New We Look and See.* Chicago, Scott Foresman and Co., *c.* 1951, pp. 23, 24, 25, 26. (*Curriculum Foundation Series, The New Basic Readers.*)

A l'école.

Pierrette dit: «On est chez les grands.»

Lisette dit: «Je me réjouis d'apprendre à lire.»

Madeline demande: «Est-ce qu'on imprimera aujourd'hui?



René et Gilbert ont manqué; ils étaient malades.

Pendant une semaine entière ils n'ont pas pu lire, ils n'ont pas pu peindre, ils n'ont pas pu écrire.

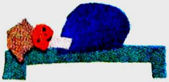
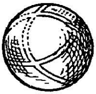


Plate X. These stories, based on actual experiences of a group of pupils, are the first and fourth in a booklet entitled *Mon premier livre de lecture*. They were prepared largely by the pupils of a school in Geneva, Switzerland, under tactful guidance from the teacher, and set up in print in the classroom. The techniques used for teaching these stories are similar in principle to those used for the 'story method'.

Supplied by courtesy of Mlle. Emilie Margairaz, the teacher (also co-author with Dr. R. Dottrens of *L'apprentissage de la lecture par la méthode globale*, op. cit.).

a e i o u



bola bo la

ba	be	bi	bo	bu
la	le	li	lo	lu

bo la	be ba	ba la
bo le	be be	be la
bo lo	be bi	bu le
bo a	be bo	bu li
bọi	be beu	bai le

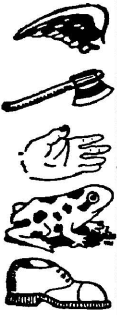
a ba a la e lo e le e la

eu i a ao bai le

bola bola bola

Figure 7. The first page of this primer introduces the five vowels through the use of pictures representing words whose first syllable consists of the vowels to be learned. The second page (reproduced here) illustrates the method of introducing the consonants as integral parts of syllabic-phonemic units. After attention has been directed to the first syllable in *bola*, *b* is combined with each of the other vowel sounds to form syllables. The same procedure is followed for *l*. The syllables so constituted are then combined to form familiar words. The key word is presented in script form as a model for use in writing exercises.

Brazil. Ministério da Educação e Saúde. Departamento Nacional de Educação. Campanha de Educação de Adultos. *Ler: primeiro guia de leitura.* Rio de Janeiro, 1948, p. 3.



a	la	a	a
ha	cha	ha	ha
ma	no	ma	ma
sa	po	sa	sa
za	pato	za	za

Figure 8a. The first page of this primer consists of pictures illustrating the syllables to be learned. On this portion of the second page *a* and several of the consonants are introduced by means of words beginning with those consonants. After the sound of *a* in *ala* has been learned, words accompanied by pictures are presented. The first syllable of each word begins with a new consonant combined with the familiar vowel, *a*.

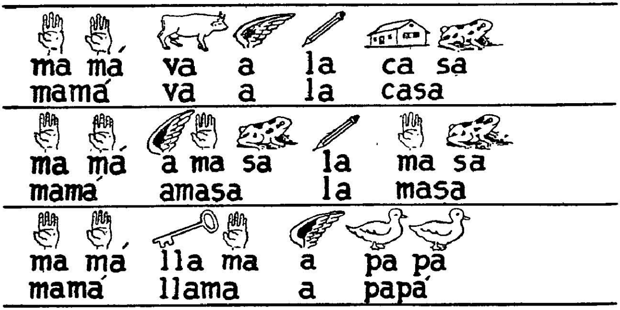


Figure 8b. This is a portion of the third page of a primer. It will be observed that immediately after *a* and various syllables including it have been learned, reading begins. The child is here aided in his recall of the syllables by the recurrence of the pictures with which they were first presented. This use of pictures is discontinued soon after a word has been introduced into reading matter. However, most primers employing the syllabic method do not use pictures as aids to recall in reading.

Unión Nacional de Periodistas, Quito (Ecuador). *Cartilla del Dr. Laubach adaptada por la U.N.P.* Quito, 1949, pp. 4, 5.

MADRAS INSTITUTE OF DEVELOPEMENT STUDIES
74, SECOND MAIN ROAD
GANDHI NAGAR, ADYAR, MADRAS-600020.

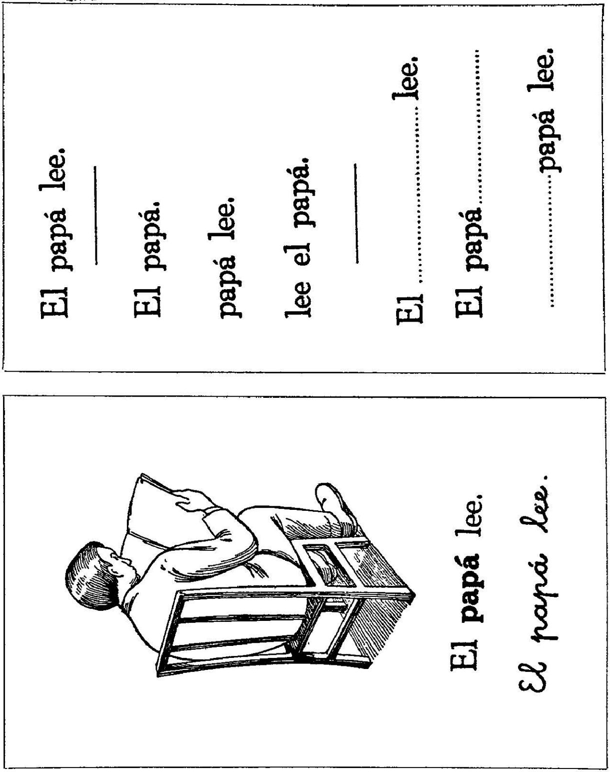
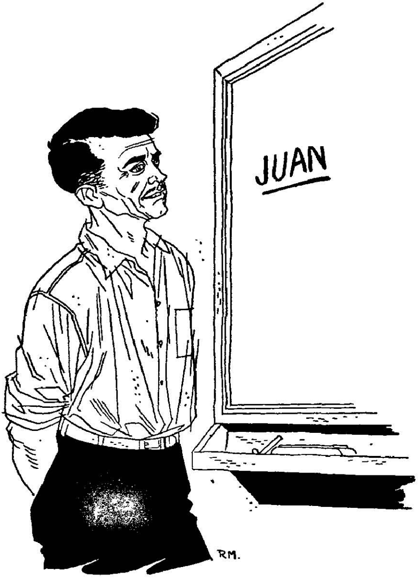


Figure 9. These two pages are the third and fourth in a primer of 127 pages. From well directed discussion concerning the picture the children conclude that it tells them that 'the papa reads'. Attention is then directed to the sentence below the picture. It is read in unison several times, and then by individual pupils. Then the sentence on the second page is read first as a whole, then bit by bit. Finally, attention is directed to the words through the device used in the last three lines. Thus, the sentence is split up into its components.

Chile. Dirección General de Educación Primaria. *Mi tesoro. Primer año.* Santiago de Chile, 1953, pp. 4, 5.



A leer, Juan.
A leer su nombre.
Sí, a leer su nombre.

Figure 10. This is page 3 of a primer. In the previous two pages all of the words used on this page had been introduced excepting *a*. In this lesson, the things and activities represented in the picture on page 1 and the words introduced on pages 1 and 2 are reviewed. The picture on page 3 is then discussed. By means of carefully worded questions, the teacher gets the class to read the different sentences under the picture. A total of 52 words is used in this primer of 30 pages.

Puerto Rico. Consejo Superior de Enseñanza. *A la escuela*. San Juan, Departamento de Instrucción Pública, 1953, p. 3. (Serie IV, No. XLVII.)

CHAPTER VI

FINDINGS OF RESEARCH THAT HELP IN THE CHOICE OF METHODS

As the changes described in Chapter V occurred, questions were raised as to the relative efficiency of the different methods used in teaching children and adults to read. Should methods vary with such factors as age, intelligence, cultural and environmental background of the pupil? In order to answer these and related questions, we shall turn in this chapter to research findings. We shall be concerned with the relative efficiency of different methods of teaching reading, the principles according to which they may be selected or elaborated on, and certain factors influencing progress in learning to read. The usefulness of supplementary aids in teaching reading will also be considered.

RELATIVE EFFICIENCY OF DIFFERENT METHODS OF TEACHING READING

Since 1900 many experiments have been carried out to determine the relative efficiency of different methods of teaching reading. Unfortunately, the evidence available does not show conclusively which of the methods in current use is the best. Only a few of the many methods have been studied experimentally, and then this was not always done with sufficient care to ensure that differences in the results were due solely to variations in the teaching methods. Again, very few studies have been concerned with adult subjects. Finally, the studies have not been repeated in sufficient cultural and language areas to show that the tentative conclusions reached have universal application. Nevertheless, the findings throw light on the problem.

RELATIVE MERITS OF DIFFERENT METHODS

In the following discussion the results of most of the important studies made during the last half century will be summarized in terms of specific issues.

'PHONIC' VERSUS 'LOOK-AND-SAY' METHODS

In 1912, Dumville[1] reported the results of an experimental study of progress in learning to read material written in the symbols of the Association Phonétique

1. Dumville, Benjamin. 'The Methods of Teaching Reading in the Early Stages', *School World*, XIV (November 1912), pp. 408-13.

Internationale by means of the Dale Phonic Method and a see-and-say method. The subjects were upper grade and high-school pupils. A year later, Valentine[1] reported the results of an experiment with two groups of college students in which a phonic and a see-and-say method were used in learning to read a passage of English prose written with Greek letters.

Both these experiments were made to compare the relative effectiveness of the phonic and look-and-say methods when those who had already learned to read their own language were learning to read material written in unknown phonetic symbols. Although it is questionable whether the findings apply directly to children or adults who have never learned to read and are attempting to learn to read their own language, it is interesting to note that the findings were sometimes in favour of one method and sometimes in favour of the other. This suggests that factors other than the method used influenced the progress of the respective groups. Moreover, Dumville obtained evidence which led him to believe that those taught by the look-and-say method would have been hopelessly inferior if they had not made 'in their minds' some analysis of the words read. Similarly, it was observed that those taught by the phonic method were making progress in recognizing words as wholes. It may be inferred, therefore, that the exclusive use of either method may not be as effective as a combination of the two. Valentine's data also indicated that a given method may not be equally effective with all pupils.

In 1925, Winch[2] carried out an experiment with children between the ages of 5 and 5½ who were learning to read their own language. After a preliminary series of teaching and testing exercises, two groups of pupils (19 in each) of 'approximately equal learning ability' were selected. They were then taught for a period of a month and a half, one group by a highly phonetic method and the other by a look-and-say method. The instruction given to each group was very formal. At the end of the training period. four tests were given, in which some of the sentences were familiar to the pupils, others not. Ballard's one-minute reading test was also given. The results of the four tests were favourable to the phonic group in accuracy of reading, and to the look-and-say group in speed. The results of the Ballard test in both speed and accuracy were favourable to the phonic group. These findings show that different methods vary widely in their effectiveness in developing specific reading abilities. They also suggest that the results of an experiment may vary with the kinds of tests used to measure progress.

These three experiments did not produce conclusive evidence. More recent experiments on the relative merits of the phonic and look-and-say methods add little to these findings, for they were carried out under very different conditions, the teaching procedures used varied considerably, and in very few of them were all of the factors sufficiently well controlled. Nevertheless, the results indicate: (a) that different methods may not be equally effective in developing various abilities; (b) that a given method may not be equally effective with all pupils; and (c) that progress in various important aspects of reading should be measured to determine the relative effectiveness of different teaching methods.

1. Valentine, C. W. 'Experiments on the Methods of Teaching Reading', *Journal of Experimental Pedagogy*, II (June 1913), pp. 99-112.
2. Winch, W. H. 'Teaching Beginners to Read in England: its Methods, Results and Psychological Bases', *Journal of Educational Research Monographs*, No. 8, Chap. V. Bloomington, Ill., Public School Publishing Co., 1925.

A PHONIC APPROACH TO READING VERSUS CHIEF EMPHASIS ON MEANING

A second series of studies was concerned with the merits of a phonic approach to reading as contrasted with the merits of laying chief emphasis on the meaning of what is read. In 1912, Gill[1] tried to determine the relative effectiveness of three methods—namely, the Dale Phonic Method with slight modifications, a phonetic method in which the forms of the letters had been made attractive to the children by ingenious, but irrelevant association, and a 'thought' or 'sentence' method. Each method was taught in a different school. The first two had been in use for two years, the third, for 18 months. Two simple paragraphs of equal length were used to measure progress. They were printed without punctuation or spacing between the words. The time required to read the text passages by pupils who were taught by the first two methods was double that of the pupils taught by the third method, 'who in fluency and intelligence of reading also were equally superior'. It will be observed that the pupils taught by this method read more fluently than the phonic group—as was true of those taught by the look-and-say method in the previous series of studies.

According to Valentine,[2] little significance can be attached to the results of this study for three reasons: the comparative intelligence of the children was not known; the general efficiency of the teachers was not considered (Gill did state that the teachers who taught by the sentence method were alert and progressive beyond the average); and the form in which the passages were printed favoured the group which had learned to read by sentence wholes.

Peyton and Porter,[3] in 1926, set out to determine by means of reading tests the comparative achievements of pupils taught by a formal traditional method and a more modern one. The older method stressed phonics. The content was uninteresting to children, consisting largely of many short sentences composed so as to afford practice in making important phonetic combinations. The contrasting method made use of attractive books, with interesting content and emphasized the meaning of what was read. Three schools took part in the experiment. All but one of the classes were at the first-grade level. To determine the learning capacity of the pupils, the Detroit First-grade Intelligence and the Pressey Primary Classification Tests were given.

Pupils' progress was measured by means of two standardized reading tests, administered by the same person and under the same conditions in all first-grade classes. The findings showed that those taught by the story method had made distinctly superior progress. When individual pupils were paired on the basis of mental ability, it was found that those taught by the newer method had made about twice as much progress as those taught by the older method. The gain made by a third-grade class taught by the new methods was 'considerably greater' than that of a class taught by traditional methods. These results assume even greater significance when it is known that the story method group averaged distinctly lower than the phonic group in mental ability.

Although these results are highly favourable to the newer methods, the evidence does not justify final conclusions. As stated by the authors, such factors as 'the teacher's personality, the enthusiasm of the children, the correctness of the habits they were forming, their rate of silent and, in most cases, oral reading' were not measured.

1. Gill, Edmund J. 'Methods of Teaching Reading: A Comparison of Results', *Journal of Experimental Pedagogy*, Vol. I (March 1912), pp. 243-8.
2. Valentine, op. cit., pp. 107-8.
3. Peyton, Edith M. and Porter, James P. 'Old and New Methods of Teaching Primary Reading', *Journal of Applied Psychology*, Vol. X (June 1926), pp. 264-76.

Other studies belonging to this series, which will be reviewed later in the chapter, confirm the findings and reservations of Peyton and Porter.

SYSTEMATIC VERSUS INFORMAL METHODS

Since about 1920 less formal and less dull methods of teaching reading have been sought. Meriam[1] wrote: '(1) The best way to teach reading is not to teach reading but to provide the occasion... in which reading functions.... (2) Let pupils read to learn, incidentally they will learn to read.' And he submitted evidence that pupils taught in accordance with these principles made more rapid progress than public-school children who received systematic training in reading. Unfortunately, there were no data on the background and mental ability of the two groups, the efficiency of the teachers, or the nature of the learning situation. These factors are important in this study, because the experimental group attended a university laboratory school.

A much more valid study was carried out by Gates, Batchelder and Betzner,[2] who compared two groups of pupils in a laboratory school. One group was taught by a 'modern systematic method', and the other by a so-called 'opportunistic method'. Twenty-five pairs of pupils in the first grade served as subjects. They were matched on the basis of test data and the combined judgments of several teachers as to '(1) physical maturity and fitness, (2) mental maturity and common sense, (3) social maturity and adaptability, (4) emotional maturity and stability, and (5) educational maturity and fitness for scholastic work'.

One group, including a member of each pair, was taught by the 'modern systematic method'. As compared with the opportunistic method, 'the daily lessons were more definitely arranged, periods for study of specific lessons more rigidly prescribed, the accomplishment of particular tasks more strictly required, and the order of the development of topics more fully determined by the nature of the subject matter and more closely adhered to'. The opportunistic method allowed more freedom and followed the interest and inclinations of the pupils. 'To a greater extent, the teacher waited for, and attempted to utilize, the spontaneous urges of the pupils to learn to read, write, spell, etc. To a smaller extent lessons and projects were set which the pupils were encouraged or required to do.'

Preliminary and final tests measured pupils' progress in reading, spelling, arithmetic, drawing, information gained, social, emotional and moral traits, and various attitudes and habits. The evidence was not explicit with regard to the development of interest, initiative and some other personal and social qualities. The opportunistic method resulted in 'slightly higher achievements' in the motor functions—writing (manuscript style) 'rather certainly', and drawing 'less surely'. The modern systematic method resulted in considerably greater achievement in specific school subjects. On the reading test, there was 'complete failure' in 15 out of 25 subjects taught by the opportunistic method, whereas none failed by the modern systematic method, The former method resulted in no exceptionally high achievements; by the latter, five pupils at the end of the first grade made scores normally attained only by pupils from 9 to 11 years old.

Discussing the findings, Gates said that if ability to read, as measured by objective

1. Meriam, J. L. 'Avoiding Difficulties in Learning to Read', *Educational Methods*, Vol. IX (April 1930), pp. 413-19.
2. Gates, Arthur I., assisted by Batchelder, Mildred I. and Betzner, Jean. 'A Modern Systematic versus an Opportunistic Method of Teaching: an Experimental Study', *Teachers College Record*, Vol. XXVII, April 1926, pp. 679-700.

tests, were the only criterion, 'the systematic method might lay claim to superiority', but if interest and enthusiasm for reading were considered highly important, then the data were not conclusive. If the teaching of reading is to contribute to other aspects of development than reading itself, this study is incomplete. In trying to find out which of two methods is the better, we must first ask: better for what? Unfortunately, this question has received far too little attention in most experiments.

READING IN CONVENTIONAL VERSUS ACTIVITY PROGRAMMES

Closely related studies have been made of the efficiency of reading instruction in conventional versus 'activity' programmes. The latter, at the first-grade level, are based largely, if not entirely, on the immediate interests of the pupils. Instruction is provided in the so-called basic skills as the need and opportunity arise in various interesting class projects. Little or no commercially prepared material is used at the beginning. In activity schools reading is taught by methods much like the 'opportunistic' method or those used in integrated instructional programmes. Because the validity of procedures followed in activity schools has been challenged, the results of objective studies of progress made in reading will be reviewed as a unit.

Dickson and McLean,[1] in 1929, measured the progress made by a group of 31 children in learning to read when the training given was a part of an integrated activity programme. The reading test scores made by the group as a whole were very satisfactory. However, the children differed widely in the extent of progress made. Analysis of test results and other information showed that mental age and a broad background of experience greatly affected progress.

In 1933, Lee[2] made an extended study of the effectiveness of activity programmes in teaching first-grade pupils to read. The Lee-Clark Reading Test was given to 11,167 pupils in all parts of the State of California. Schools varying from the one-room rural to highly graded city schools were included in the study, and results were obtained from 144 different classrooms. Information was also obtained concerning 'the size of class, the number of classes in the room, the types of supplementary material used, and the amount of activity work done'. The findings indicated that 'pupils in classrooms doing a great deal of activity work do not learn to read as well as do other pupils'. Progress made in other kinds of school work was not measured, and the reading tests measured progress in only a few aspects of reading. These limitations were recognized. Lee pointed out that final conclusions concerning the relative effectiveness of the two types of teaching procedure could be arrived at only by means of broader evaluation programmes.

Between 1930 and 1950 many further studies were made—Wrightstone's[3] is an outstanding example. In 1941, studies[4] published over the preceding 10 years were summarized and the chief conclusion reached was that 'the influence of activity programmes and informal methods on reading achievement was another of the

1. Dickson, Julia E. and McLean, Mary E. 'An Integrated Activity Program try-out in a First Grade of the Public Schools', *Educational Method*, Vol. IX, October 1929, pp. 31-42.
2. Lee, J. Murray. 'Reading Achievement in First-Grade Activity Programs', *Elementary School Journal*, Vol. XXXIII, February 1933, pp. 447-52.
3. Wrightstone, J. Wayne. 'Evaluation of the Experiment with the Activity Program in the New York City Elementary Schools', *Journal of Educational Research*, Vol. XXXVIII, December 1944, pp. 252-7.
4. Traxler, Arthur E., with the assistance of Margaret Seeger and the Educational Records Bureau Staff. *Ten Years of Research in Reading*. New York, Educational Records Bureau, 1941, pp. 38-9. (*Educational Records Bulletin*, No. 32.)

debatable questions... to which research had not yet supplied a conclusive answer'.

In 1946, Traxler and Townsend[1] reviewed the results of the studies reported between 1940 and 1945. Two of these studies showed clearly that by the time pupils who were taught to read as part of an activity programme had reached the upper grades they equalled or excelled in reading achievement those who had been taught by other methods. Another study showed that dull-normal children from underprivileged homes made as much progress as children attending regular schools. In the light of the evidence available, Traxler and Townsend concluded, 'The trend of all these studies is apparently somewhat favourable to activity programmes, although the evidence that activity programmes have a more desirable influence upon reading development than conventional programmes is not very impressive.'

In 1951, Wrightstone,[2] who had for years strongly supported activity programmes, came to the following conclusions: The evidence from research indicates that the real issue is not which of the two procedures under discussion is better, but rather what is the role of each in contributing to development in reading. When the evidence is reviewed from this standpoint, it is found that both methods of instruction contribute to the development of basic knowledge and skills in reading. Experience charts are most effective in arousing interest and cultivating favourable attitudes towards reading and in enriching the experience of pupils. (He had already pointed out that basal readers developed reading attitudes and skills in accordance with the findings of research.) The total reading programme provided in a school, he considered, should avail itself of both methods of instruction.

From this it may be concluded that: experimental studies of the relative merits of specific methods of teaching reading do not show conclusively which method is best; they indicate rather that some methods further progress in certain aspects of reading and other methods in still different aspects. As pointed out by Seegers,[3] who studied the achievements of pupils taught by several different methods in 55 classrooms of Pennsylvania, no one method is wholly effective or ineffective—each has advantages and weaknesses.

These findings indicate that it is essential first of all to define the aspects of reading in which growth is desired, and then to measure progress. The studies reviewed were based largely on children and were carried out exclusively in English-speaking countries. Related studies in other languages will be referred to in the next section.

PRINCIPLES THAT HELP IN SELECTING VALID METHODS

Although the results of research do not indicate conclusively which of the various methods is the best, certain facts and principles emerge.

SPECIFIC METHODS OF TEACHING READING DO NOT LEAD TO THE SAME RESULTS AMONG ALL MEMBERS OF A GROUP

The fact that pupils taught by the same method do not progress at the same rate was pointed out several times in the preceding section. Evidence of this is found in

1. Traxler, Arthur E. and Townsend, Agatha. *Another Five Years of Research in Reading*. New York, Educational Records Bureau, 1946, pp. 56-7. (*Educational Records Bulletin*, No. 46.)
2. Wrightstone, J. Wayne. 'Research Related to Experience Records and Basal Readers', *The Reading Teacher*, Vol. V, November 1951, pp. 5-6.
3. Seegers, J. C. 'Reading Methods in Pennsylvania First Grades', *Educational Method*, Vol. VIII, June 1929, pp. 510-15.

practically every study that has been published including detailed records of pupils' achievement.

As early as 1917, the author[1] compared the rate and accuracy of oral reading among the pupils of each of the first three grades[2] in 44 schools of Cleveland, Ohio. Three different methods were employed: 26 schools used the Aldine Method, in which the reading of stories for meaning was emphasized; 17 schools used the Ward Method, in which phonics and word recognition were stressed; and one school used a method of its own. The results showed that both individual and class scores in schools using the same method varied a great deal. Of the schools which ranked either highest or lowest in the school system some used the Aldine Method and some used the Ward. Seegers[3] obtained similar results in a study of the silent reading achievements of pupils in 55 schools of Pennsylvania using various methods.

Similarly, McLaren[4] reported wide differences among children in Glasgow, Scotland, who were taught by two methods, in each of which both meaning and word recognition were emphasized. The chief difference was that in one case phonics was taught separately from the reading period, and in the other case it was integrated with other aspects of reading instruction. Pupils were tested on picture comprehension and recognition. Although the average scores of two groups were practically the same, the individual scores varied a great deal. Finally, a detailed report[5] of the progress of Belgian pupils taught in the French language revealed wide variations in the achievement of pupils taught by the global method.

Even in studies that indicate some degree of superiority of one method over another, the impressive fact is not the difference between the average scores of schools using different methods, but the wide range of average scores made by schools using the same method, and of individual scores within each group. These findings seem to apply to children in all parts of the world. Comments and evidence presented by teachers of adults suggest that they apply at that level too. Obviously, factors other than the method used influence progress in learning to read. This conclusion should not discourage people from trying to discover the best method for specific purposes, but it means that the method used is only one of many factors that must be considered when reading programmes are planned.

CONTRASTING METHODS OF TEACHING PRODUCE DIFFERENT RESULTS

Among the most illuminating studies that have been reported are those which make detailed analyses of the progress of pupils taught by contrasting methods. The findings show clearly that contrasting methods usually develop different groups of attitudes and skills. The results of three such studies will be reviewed briefly.

The first was made by Buswell[6] under conditions that permitted him to obtain detailed records of progress in various aspects of reading. The subjects were two

1. Gray, William S. *Studies of Elementary School Reading through Standardized Tests.* Department of Education, University of Chicago, 1917, pp. 127-8. (*Supplementary Educational Monographs*, No. 1.)
2. The first grade is attended normally by pupils during their first year in school, the second grade by those during their second year, etc.
3. Seegers, op. cit., p. 513.
4. McLaren, Violet M. 'Socio-economic Status and Reading Ability—a Study in Infant Reading', in Scottish Council for Research in Education, *Studies in Reading.* London, University of London Press, 1951, Vol. II, pp. 1-62.
5. Seegers, J. E. *La psychologie de la lecture et l'initiation à la lecture par la méthode globale.* Anvers, De Nederlandsche Boekhandel, 1939, pp. 324-59.
6. Buswell, Guy Thomas. *Fundamental Reading Habits: a Study of Their Development.* Department of Education, University of Chicago, 1922, Chap. III. (*Supplementary Educational Monographs*, No. 21.)

groups of first-grade pupils. With one group, skill in word recognition was emphasized. Elaborate phonic drill was provided in a separate period. Sufficient drill was given to secure great independence in the recognition of words. In teaching a new selection, the teacher first told the story *in her own words* in order to interest the pupils. Next she wrote the new words on the board, drilling the children as she proceeded.... After all the new words had been studied, the pupils read the selection aloud.

With the second group, emphasis was laid on the meaning of what was read, the establishment of a correct reading attitude and a love of reading, by the provision of interesting content. 'The method proceeded from the whole story to lines and phrases, and finally to individual word study.' The word study was subordinated, however, to the development of a proper reading attitude.

The experiment was carried out in two schools, each using a different method, In order to study the progress of the pupils at two levels, in each school a group of new pupils who were just beginning to learn to read was selected. The other groups had been learning to read for six months. In order to limit the experiment to so-called 'typical first-grade pupils', neither the very good nor the very poor pupils were used as subjects.

Progress studies were made at six-weekly intervals, thus providing six groups of records for an entire year. These records were designed to throw light on pupils' progress in four aspects of reading: a proper reading attitude, word recognition, span of recognition, speed of recognition and regular procedure (of the eyes) along the printed lines, and a rhythmic expression or interpretation of thought units as contrasted with the mechanical pronunciation of words. To obtain the data, Buswell photographed the eye movements of the pupils while they read aloud and at the same time had sound recordings made. Detailed study of these records revealed significant differences in the achievement of the two groups.

The pupils who had been taught with the emphasis on word recognition read the words more accurately than the other group, followed the lines more regularly, and read the page more faithfully. However, they tended to read in a more mechanical fashion, with less expression and with less show of interest. The pupils who had been taught by the story method read less accurately and followed the lines less faithfully, but they read in a much more animated manner and gave every appearance of enjoying the passages read.

The conclusion was: If the primary emphasis is placed on word recognition, the outcome is the ability to follow the printed lines, to pronounce all the words, but to display no vital concern for the content. It produces what is familiarly called word reading. This is not the complete attitude of the mature reader. The method goes far in the development of word recognition, an ability which all pupils must ultimately develop. It does not help the pupil to read so as to grasp the sense. On the other hand, when the chief emphasis is placed on the thought... the pupils become interested in content, but develop more slowly in word recognition and in ability to follow the lines.[1]

Another study[2] was made of first and second-grade classes. Two groups of equal numbers and 'equal average ability' were selected in each grade, one of which was given concentrated training in phonics. 'All words were developed phonetically.' The other group was taught by a story method, the pupils receiving no phonetic training. 'Words were learned by quick perception and sense-content methods.' Studies of the progress of all four groups led to the following conclusions: The

1. ibid, p. 72.
2. Currier, Lillian Beatrice and Duguid, Olive C. 'Phonics or No Phonics', *Elementary School Journal*, Vol. XVII, December 1916, pp. 286-7.

phonic groups so concentrated upon letter sounds that attention was diverted from the sense of the paragraph to word pronunciation. This brought about boredom and fatigue and destroyed the pleasure which the story should yield. The reading was generally less smooth, slower, and the ideas confused. The groups which were not taught phonics were found to enjoy reading for its own sake. From the story they got the sense. They were less careful and less correct than the phonic groups with regard to pronunciation. Keeping the sense in mind, they often substituted words from their own vocabulary for difficult or unfamiliar words in the text. They read more swiftly and with more expression. Fatigue was reduced, because the story held their interest and they were intent on the outcome.

Seegers[1] described the results achieved through the use of the 'global method' in one school. The chief aim of the study was to determine the nature and rapidity of the progress made by different pupils. They came from a bilingual environment and ranged in chronological age from 5 years 6 months to 6 years 11 months, in mental age from 5.2 to 7.8, and in intelligence quotients[2] from 88 to 118.

Materials and methods followed a frequently used pattern of global teaching, in which reading is based on centres of interest and closely integrated with other class-room activities. The time devoted to reading never exceeded 10 to 15 minutes for exercises each morning and 15 to 20 minutes for reading games in the afternoon. Reading was regarded as 'a simple exercise in expression'. Exercises in the analysis of words were systematically avoided until near the end of the year, and even then only a limited amount of time was devoted to them. Such exercises took the form of games which each child had the opportunity to do 'according to his own means'.

Tests were given to all pupils at frequent intervals throughout the year. The first part of the final test consisted of a list of 75 different words and of 116 words in 10 sentences. Records were made of the time required to read them and the words wrongly read. The second part of the test, which measured rate of reading, consisted of 25 syllables, 10 words and one sentence. The words read correctly were marked on an examination sheet. As the pupils read the sentences, the examiner noted: '(1) if reading was sub-syllabic, syllabic, hesitating, fluent or expressive; (2) the number of pauses; (3) duration of reading; (4) words read incorrectly'.

The following conclusions were reached: 'With the global method, as it has been applied, children with the average mental age of 6 can, in eight months, learn to read about 300 words, by devoting 20 to 30 minutes a day to reading. Gifted children, or those with particular aptitude for reading, can with these exercises read fluently after five months.... It is sometimes necessary to provide for fairly marked individual differences and to take into account possible anomalies which will prevent some pupils from achieving the results achieved by average pupils.'

Seegers makes the following comment: 'As already pointed out by Simon, the results of children who have learned to read by the global method are completely different from those who learn to read by the synthetic method. We even admit that we have frequently been most embarrassed to evaluate these results, and we have preferred not to point out those referring to time spent and pauses during reading. Here are the reasons—our subjects used to recognizing known words by their ensemble (general configuration, gestalt) make little effort to decipher meaningless syllables and words alien to their vocabulary. During the reading of sentences they omit unknown words.... One could consider this fact as a grievance against the

1. Seegers, op. cit., pp. 360-2.
2. An intelligence quotient is obtained by dividing the mental age, in months, by the chronological age, in months, and by multiplying the product by 100 in order to avoid decimal points.

global method, but we think with Vaney that the child learns to read only after several years.'

The foregoing examples supply clear evidence that different methods of teaching reading develop different groups of attitudes and skills. This finding is supported by practically all detailed comparative studies made among both children and adults. The attitudes and skills developed may vary all the way from those that aid in word recognition to those that promote keen interest in the meaning of what is read. Or again, they may include most, if not all, those that characterize an efficient reader.

SPECIALIZED METHODS START PUPILS ON DIFFERENT ROADS TO MATURITY IN READING

Does it make any difference what kind of start is made in learning to read?

As stated above, many pupils, after six months' training by a method in which chief emphasis is placed on content, acquired an active interest in meaning, but were unable to recognize the words and to follow the lines accurately. According to Buswell,[1] advocates of this method maintain that 'a correct attitude towards reading is of such great importance that it should be pushed a long way towards maturity, letting the other habits rest for the time being'. He pointed out that the danger does not lie in the early development of a thoughtful reading attitude, but in failure to develop other important attitudes and skills. The time at which word analysis should be introduced, however, is a highly controversial issue. Many believe that it should be stressed from the beginning. Others, who are convinced that pupils should ultimately learn to analyse words into their elements, insist that they should not be forced to identify word elements until they are psychologically ready to do so.

Buswell showed that pupils taught with the emphasis on word recognition were able by the end of the first half-year to recognize words and to follow the lines accurately, but had not acquired any concern for the content or interest and enjoyment in reading. Since words are the keys to meaning, the first task in teaching children and adults to read should be to develop skill in word recognition, Here, again, the danger, according to Buswell, does not lie in the early development of word recognition skills, but in failure to cultivate other essential attitudes and habits.

This question merits careful study. Of the many different methods used to teach children and adults to read, each develops certain attitudes and skills and often fails to develop others of equal importance. Thus thousands of children and adults in all parts of the world who have received much training in reading have not acquired all the basic attitudes and skills for efficient reading. A possible solution to this problem is suggested by the results of research.

GOOD INITIAL PROGRESS IN READING RESULTS FROM EMPHASIS ON BOTH MEANING AND WORD RECOGNITION

A recent trend in teaching reading has been to combine in a co-ordinated programme special techniques connected with particular aspects of reading. The desirability of this trend has been brought out by the results of several experiments.

In a study carried out in Puerto Rico during 1931-32 and 1932-33,[2] the pro-

1. Buswell, op. cit., pp. 103-4.
2. Monserrate, Josefita and others. *Manual del metodo de rimas y fonética para enseñar a leer en el primer grado.* San Juan, Puerto Rico, Negociado de Materiales, Imprenta y transportes, 1934, p. 70.

gress of first-grade pupils taught by a strictly phonetic method was compared with that of a similar group taught by a combination of the global method (rhymes, stories, sentences) and the phonetic method. With the experimental group reading was regarded as the interpretation of the thought expressed by the written or printed words, phonetic training was given when necessary, but considered as a means to an end—that is, the deciphering of meaning. Both the experimental and the control groups were selected at random from the pupils who entered a particular school at the beginning of the year. There were 35 pupils in each group and the same teacher taught both.

At the end of the school year tests were administered to measure achievement in three aspects of reading. In speed of silent reading the experimental group read, on the average, 58.75 words per minute, and the control group, 39.38. In comprehension, the experimental group made a score of 18.1, and the control group, 14.2. In average time in seconds for reading 38 words, the score of the experimental group was 36.25, and the score of the control group, 55.83.

The next year the experiment was repeated in four cities of Puerto Rico—6 classes using the phonetic method, and 13 classes using the combined global-phonetic method. When the same tests were given, the results showed distinct superiority of the combined method over the phonetic. In only one class taught by the phonetic method did the scores exceed those of a class taught by the combined method.

McDowell,[1] in 1953, tried to determine the relative merits of a phonetic approach and of a more broadly conceived programme. The phonetic method characteristically demanded 'thorough training and development of phonetic skills before the child began to read...'. The initial aim was the development of the ability to pronounce letters, then syllables and words, and finally sentences. The contrasting method included phonetic training, 'but as a subsidiary word attack skill, which was developed gradually through analysis of meaningful material'.

Certain teachers were asked to experiment with the phonetic method for a period of three years. When the pupils concerned reached the fourth grade, their progress was compared with that of pupils taught by the method used regularly in the school system—firstly by means of the Iowa Silent Reading Test. The pupils tested included 77 pairs of boys and 55 pairs of girls, who were closely matched in intelligence. The scores showed that the pupils taught by the regular method 'read faster, understood words, comprehended sentences, used the index, and in general read better than the phonetic group'. The latter, however, made superior scores in spelling.

A second comparison was made by means of the Metropolitan Reading Test, which was given to 128 paired sets of pupils, fairly well matched in intelligence, the phonetic group being slightly superior. The group taught by the regular method made higher scores in reading, vocabulary and language mastery. However, the differences were not statistically significant. In spelling, the phonetic group was clearly superior. This was attributed to persistent emphasis on spelling from the beginning: as pointed out by McDowell, the 'mental set', which such a programme established was quite obvious from observing any classroom situation or by examining the data already presented. 'The child was attentive to pronouncing the word, to getting *anything* that rhymed with the original word... and to spelling the word. But the "mental set" of looking for meaning was not there.'

It would appear that emphasis on both meaning and word recognition is desir-

1. McDowell, Rev. John B. 'A Report of the Phonetic Method of Teaching Children to Read', *The Catholic Education Review*, Vol. L, October 1953, pp. 506-19.

able from the beginning. A long experimentation at the University of Havana, Cuba, shows that this applies to adults as well as to children. The aim of the study was to determine the relative merits of the syllabic, word and sentence methods in teaching adult illiterates. At the end of each year tests were given in word recognition and comprehension. The three methods were then revised accordingly. As a consequence of the changes made each year, the three programmes have become increasingly similar, emphasizing both meaning and word-recognition skills from the beginning. The chief difference was the size of the language unit used in the first reading lessons—in two of the methods, words, in one sentences.

This practice follows the eclectic trend described in the preceding chapter. Both studies support the view that ability to get meaning and recognize words should be developed concurrently. The nature and extent of training in word analysis that children should receive during the early stages are still open questions. Because of their greater maturity and more analytical habits, adults may be taught word analysis to advantage from the beginning. Attention to meaning should not be sacrificed, however.

FACTORS AND CONDITIONS THAT AFFECT PROGRESS IN READING

In Chapter IV personal factors such as mental ability, command of language, background of experience, emotional and physical conditions, and age were discussed. Variations in these factors demand adjustments in the content and methods of teaching. Attention is now directed to cultural and environmental factors, which also affect progress in reading and to which teaching should be adjusted.

CULTURAL AND ENVIRONMENTAL FACTORS

The interests, ideals and attitude towards reading of a community are conditioned by its culture. Some communities have 'a burning desire' to learn to read and apply themselves whenever they have the opportunity. Others are self-satisfied or just not interested in learning to read. Very different procedures must be adopted, of course, if satisfactory progress is to be made in early reading activities and readiness for progress.

Cultural differences also exist within communities. Children from homes where people read have often looked at pictures and glanced through magazines as their parents have read to them. They have also experienced some of the pleasures that may be derived from reading and are keen to learn. Very often they have even made some progress in reading signs, labels and very simple stories. Under these conditions, when they enter reading classes, they usually apply themselves vigorously.

Children from illiterate homes, on the other hand, come to school with few or none of the experiences referred to above. Much time must be spent, therefore, in arousing interest in learning to read in the early classes. Illiterate adults, too, enter classes hesitantly. Since reading is for them an unusual activity, they look upon ability to read as something only the superior can acquire. They therefore doubt their capacity to learn. Much preparation is required before reading can be introduced and the teaching must be adapted to their specific needs.

THE LANGUAGE USED

Teaching methods have of course been influenced throughout their development by the kinds of characters used for writing. Forming self-reliant readers is a dif-

ferent problem in China or Japan than in countries having alphabetic languages.

Within the alphabetic languages too, methods differ owing to linguistic differences. Such factors as phonemes, syllables, stress, tone, word order, inflection and non-free forms make it necessary to modify in detail the methods used.[1] In the selection of methods, consideration must be given to special characteristics of the language concerned.

QUALIFICATIONS OF TEACHERS

It is often impossible to adopt modern methods of teaching because teachers are not adequately trained. In some regions, teachers have had no professional training and are acquainted only with the method by which they learned to read themselves. If asked to use a different method, they express opposition and sometimes resign.

In many communities it is deemed wiser to continue the use of less effective methods—at least for the time being—than to introduce forcibly new methods before teachers and parents recognize their value. For instance, Zarilli and Abadie Soriano,[2] after making a study in Uruguay, South America, to compare the relative merits of 'an ideo-visual, non-phonetic method' and 'a phonetic analytic-synthetic method', concluded that to ensure the best results the useful elements of the phonetic method should be combined with the 'highly educative' global method. However, when they studied the attitudes of teachers and parents towards the two methods, they discovered that the teachers were familiar with the 'phonetic analytic-synthetic' method and co-operated in its use, whereas they were unfamiliar with the ideo-visual method and opposed its introduction. Similarly, parents opposed the ideo-visual method because they did not appreciate the educational value of the preparatory exercises. For these reasons, and owing to the lack of proper equipment, ideo-visual procedures were not introduced.

Little or nothing can be gained by a method which arouses hostility, no matter how valid and generally effective it may be. A teacher can usually get best results with a method he knows and understands. When circumstances do not justify the adoption of an improved method immediately, teachers should first be trained in its use, parents prepared for the change, and appropriate classroom equipment installed.

THE GOALS TO BE ACHIEVED THROUGH TEACHING

If the chief aim of teaching is the all-round development of children—as in the global plan—the reading programme is naturally subordinated to it. The content of the reading lessons, the vocabulary, the learning problems, are determined largely by the children's activities from day to day. Methods used in teaching are influenced accordingly. Some of the striking differences, as contrasted with traditional reading programmes, were illustrated in the discussion of the integrated programmes of teaching in Chapter V.

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1. Gudschinsky, Sarah. *Handbook of Literacy*. Rev. ed. Norman, Okla., Summer Institute of Linguistics, University of Oklahoma, 1953, 85 + vi p.
2. Zarilli, Humberto and Abadie Soriano, Roberto. *Metodología de la lectura; desde el deletreo a la globalización: fundamento del método Abadie-Zarilli.* Montevideo, 1946, pp. 165-71.

TIME AVAILABLE FOR TEACHING

The time available for teaching also influences the nature of teaching procedures, their sequence and their timing. If, for example, children are to remain in school for six or eight years, an easy pace can be adopted from the beginning, but if they are only there for three or four years—as happens in many areas—they must be pushed in all aspects of reading.

The time factor is also important with most adults, therefore the programme, the methods used, their sequence and timing, must be such as to produce reasonably efficient readers within a relatively short time. But the aims adopted should not be too narrow, or the adults will be able to make little or no use of the few skills acquired once training is over. Many adults are in this situation today. Their deficiencies can be compensated later only at the expense of much time and effort. The programme should provide from the beginning for continuous development up to the attainment of functional literacy.

At least two important conclusions may be drawn: in the selection of methods of teaching reading certain facts and principles apply universally; and methods often need to be adapted to different cultures, languages and communities. The choice of methods must be based on a clear understanding of common principles and knowledge of local conditions and needs.

VALUE OF SUPPLEMENTARY AIDS

Reference should be made to the findings of research concerning the value of supplementary aids in teaching reading, which are increasingly used in many countries.

WRITING AS AN AID IN BEGINNING READING

Ever since reading was taught in ancient Greece, instruction in reading and writing has been closely related. Directions for teaching handwriting were provided in primers or readers, and the same material was used in teaching both arts, until recent times, when many practices have been followed varying between integration of all the language arts and the separate teaching of reading and writing, if not the postponement of the latter.

Practically all specialists in the language arts favour the introduction of reading and writing at about the same time. They maintain that progress made in the one contributes to progress in the other. The writing of words calls attention to their details, helps to distinguish one from the other, and to build up a reading vocabulary. Freinet[1] submitted evidence that writing is a very valuable aid both in developing readiness to read and in hastening progress in reading. Hildreth,[2] summarizing many objective studies, says that 'writing reinforces word recognition and sentence sense. It increases awareness of the characteristic features of words' and helps pupils 'in building a sight vocabulary'. It also contributes directly to spelling ability. Fernald[3] has supplied convincing evidence that the kinaesthetic method, which uses much

1. Freinet, C. *Méthode naturelle de lecture.* Cannes (Alpes Mar.), Editions de l'Ecole Moderne Française, 1947, 59 p. + illus. (*Brochures d'éducation nouvelle populaire*, No. 30.)
2. Hildreth, Gertrude. 'Interrelationships among the Language Arts', *Elementary School Journal*, XLVIII (June 1948), pp. 538-49.
3. Fernald, Grace M. *Remedial Techniques in Basic School Subjects.* New York, McGraw-Hill Book Co., Inc., 1943, 349 p.

tracing and writing, is very effective with pupils who encounter difficulty in learning to read.

Beyond the early stages of learning to read writing activities have also proved very valuable. Sutton,[1] for example, tried to find out what influence, if any, 'emphasis on writing stories, poems and reports to be read later by other members of the class' had on progress in reading. Over a period of four months the experimental group advanced 0.9 of a grade, and the control group, 0.35 of a grade. Whereas other factors may have contributed to the greater progress of the experimental group, it is clear that writing activities closely related to reading are of great value in promoting progress in reading. There is little or no experimental evidence as to the relative merits of integrated and closely related instruction in reading and writing.

TYPEWRITING AND PRINTING AS AIDS TO READING

Typewriters and printing sets are also used as aids in learning to read. Many specialists in the education of young children, such as Dottrens in Switzerland and Freinet in France, advocate their use. As early as 1936, a series of studies of the influence of typewriting on growth in reading[2] led to the following conclusions: 'On the basis of the evidence now at hand, the typewriter appears to exert a favourable influence on primary grade reading.... It contributes to clearer visual perceptions, and probably to more meaningful auditory impressions.... In the intermediate grades the typewriter has a definitely positive effect on pupils' comprehension of words and sentences.... It may be safely concluded that the typewriter influences elementary school reading in a positive manner and to an important degree.' Whereas similar studies have not been made of printing, it may reasonably be assumed that its value is equally great.

SLIDES, FILMSTRIPS AND FILMS

Various visual aids are also increasingly used. Investigators have found that coloured slides are very effective in providing a common background for early reading, evoke clear visual imagery and are especially helpful to poor readers.[3] A few studies have also been made of filmstrips and films. In one study[4] material in the reader was presented on a filmstrip before it was read from the book. It was found that pupils made much more than the normal amount of progress. The explanation offered was that the filmstrips aroused keen interest and added to the vividness and clarity of the lesson.

1. Sutton, Rachael S. 'Improvement of Reading Skills through Preparation of Materials', *Journal of Educational Research*, XLVII (February 1954), pp. 467-72.
2. Haefner, Ralph. 'The Influence of the Typewriter on Reading in the Elementary School', *Elementary English Review*, XIII (December 1936), pp. 291-4.
3. Jardine, Alexandre. 'The Experimental Use of Visual Aids in Teaching Beginning Reading', *The Educational Screen*, No. 17, September 1938, pp. 220-2.
4. McCracken, Glenn. 'The New Castle Reading Experiment: a Terminal Report', *Elementary English*, XXX (January 1953), pp. 3-21.

OTHER SUPPLEMENTARY AIDS

Studies have also been made of work books,[1] practice materials,[2] games[3] and tachyscopic or short-exposure exercises.[4] In general the evidence is distinctly favourable to the use of such aids, under proper direction. Although most pupils profit from them, they appear to be most helpful for slow learners.

Great improvements have been made in teaching methods by means of these supplementary aids. Continued experimentation should lead to the development of even more effective procedures.

SUMMARY STATEMENT

On the evidence now available, it is impossible to determine which of the current methods of teaching reading is the best. Each has advantages and limitations, and no method produces the same results in all situations. The latter finding suggests that other factors affect progress in learning to read. Different methods emphasize different aspects of reading and start pupils on different roads to maturity in reading. To become an efficient reader one must sooner or later acquire maturity in all the essential aspects of reading. As a rule the best results are obtained by stressing both meaning and word recognition from the beginning. However, many procedures have to be adapted to the culture, the language, and conditions and needs peculiar to each area. A sound reading programme for a given community can best be planned by those who have a clear understanding of both the basic principles that apply everywhere and local conditions and needs. The value of supplementary aids in teaching should be kept clearly in mind.

1. Pierce, R. P. and Quinn, Helen J. 'A Study of Certain Types of Work Materials in First-Grade Reading', *Elementary School Journal*, XXXIV (April 1934), pp. 600-6.
2. Scott, R. E. 'Flash Cards As a Method of Improving Silent Reading in the Third Grade', *Journal of Educational Method*, V (November 1925), pp. 102-13.
3. Goforth, Lillian. 'A Classroom Experiment in Teaching Reading and Arithmetic Through Games', *Journal of Educational Method*, XVII (February 1938), pp. 231-5.
4. Davis, Lourse Farwell. *Perceptual Training of Young Children-National College of Education; a monograph on language arts*. Chicago, Row Peterson and Co., 1949.

CHAPTER VII

NATURE AND ORGANIZATION OF READING PROGRAMMES FOR CHILDREN

The preceding chapters have considered the nature and extent of the influence of cultural, linguistic, personal and community factors in achieving literacy as an aid to individual and group progress. They have also described the characteristics of various methods now used in teaching reading and have reviewed their effectiveness. We shall consider in this and the next chapter the kinds of reading programmes which should be developed to ensure functional literacy. Attention will be directed first to the nature and scope of such programmes for children in primary schools.

EXAMPLES OF THE TYPES OF PROBLEMS FACED

There are striking differences between countries in the progress made in establishing schools for children, the conditions under which reading is taught, and the nature and scope of the training provided. The brief descriptions that follow deal with some of the chief problems in present-day teaching of children to read.

IN AREAS THAT ARE JUST BEGINNING TO ESTABLISH SCHOOLS

Very limited programmes are reported by many communities which are making initial efforts to provide schools for children. The need for schools in many of these areas has often not been widely recognized; the effort to develop them is limited to a few individuals who are struggling to provide some schooling for their children, usually without support from public funds. The school buildings, if any, are ill-adapted in space, lighting and equipment to the purposes of primary education. The teachers have, as a rule, had little or no training, and can draw only upon a very limited background of experience in organizing and directing class activities. No teacher-training agencies or supervisory help are available.

The materials used in teaching reading consist largely of a primer based on very formal methods. The chief aim is to develop the skills of word recognition; the assumption being that if children learn to recognize and pronounce words, they will be able to grasp the meaning of the passage read. Unfortunately, few or no books are available which can be used in applying the skills taught in class. Such programmes and practices represent at best a beginning; they are incomplete and usually fail to prepare children to use reading in enriching their experience or in solving personal or group problems. Public support, vigorous leadership and concrete help over a long period are greatly needed.

IN AREAS STRUGGLING TO PROVIDE SCHOOLS FOR ALL CHILDREN

Then there are the areas which still have a large percentage of illiteracy and are in the midst of long-term efforts by government agencies to establish schools for all children. Such a country as Brazil, for example, faces both very varying local conditions and many serious handicaps. Whereas excellent schools have been developed in some communities, in large areas of the country no schools of any type are available. The buildings and equipment for the schools that have been established vary all the way from 'extremely limited' to 'very good'. At least a score of different primers are in use, representing practically all methods of teaching reading from a highly formal phonetic method to a modern sentence-story method.

As most of the teachers have had little or no training, great freedom is allowed in the choice of primers and methods, and as most of the untrained teachers themselves learnt to read by formal synthetic methods, they usually choose primers based on such methods. The resulting situation is 'far from satisfactory'. The teacher-training agencies that have been established are doing as much as they can to acquaint teachers with sound principles underlying the teaching of reading, but until there is a rapid increase in the number of trained teachers and adequate supervisory assistance in areas where it does not today exist, progress will be very slow.

The lack of simple material to supplement the use of the primer is deplored by most teachers and school officers. Owing to the small amount of reading done, pupils fail to acquire either fluency or keen interest. Again, many of the books used beyond the first year are largely made up of selections relating to history, geography and nature, most of them too difficult. The pupils have to struggle continually to overcome word difficulties, advance only very slowly beyond a word-by-word type of reading, and as the content is neither interesting nor related to their experiences, the pupils find little or no reward in reading.

These problems are clearly recognized. During a recent conference, a local author of a well-written primer was urged informally by members of the Brazilian Ministry of Education to prepare a series of books based on the interests and experiences of children that could be used for progress in reading beyond the primer level; it was pointed out that by so doing she could make a greatly needed contribution to child development and to the reading programme of the country. The need for more and better reading material is everywhere urgent.

IN AREAS WITH WELL ORGANIZED SCHOOLS FOR ALL

In countries which have unified and well-organized school systems, provide schools for most it not all children, and have reasonably good buildings and fairly well-trained staff, it is easier to concentrate effort on the improvement of the instruction given. Through the help of a syllabus revision committee,[1] New Zealand for example is attempting to develop reading programmes that will ensure progress in all the essential aspects of reading. As conceived by the committee, the chief aims are to arouse and maintain interest in reading, to master the mechanics of word recognition, to develop ability to secure meaning, to establish habits of effective silent reading, to train in the art of oral reading, and to foster a love for good books. The ultimate aim is ability to use reading as a vital aid in personal development and social efficiency.

1. New Zealand Educational Institute. Syllabus Revision Committee. 'Reading in the Primary School: Reports', supplement to *National Education*. Wellington, New Zealand [ca. 1949], 31 p.

The proposed programme is divided into stages of instruction each of which aims to achieve certain strategic goals. The first three of these stages are the 'preparatory', the 'introductory', and the 'continuation'. The first stage prepares the child for rapid progress in learning to read; it extends, as a rule, through a period of six weeks, though the time varies with the needs of the pupils and their ability to learn. As the pupils associate with each other, an effort is made to instil confidence, a feeling of security and good social adjustment. Special training is given in vocabulary expansion, speech improvement, ear training, visual discrimination, and picture interpretation.

The 'introductory' stage requires from four to six months, during which from 75 to 100 words are learnt and the basic attitudes and skills involved in the reading of very simple material mastered. A sight vocabulary is developed, and both silent and oral reading of short stories is required. The 'continuation' stage extends for about a year and a half, during which specific training is given to develop skill both in word recognition and in ability to grasp meaning. These two aspects are so integrated that the child makes rapid progress towards independence in reading for meaning. Comprehension is developed through word study, class discussion, supplementary reading and dramatization. By systematic training the vocabulary is extended to a total of 800 or 1,000 words. The ability to read simple material independently that is thus developed provides a broad basis for the training given later.

Obviously, the New Zealand programme has reached a much more advanced stage of development than those referred to above. The steps that are now being taken aim at helping all the schools of New Zealand to develop carefully planned sequential reading programmes, through the elementary school period. Leadership and careful planning of the types described are essential for effective results in any school system.

The foregoing descriptions supply striking evidence that current reading programmes vary widely in nature and scope. Some of the differences are due to differences in the cultural level of communities and in the role of reading in the lives of people. Others are due to differences in prevailing views concerning the chief purposes of schooling and the nature and extent of the training needed in reading. Still others are due to differences in financial resources, the amount of reading material at hand, the training of the staff, and the vision of leaders.

Sound policy dictates that efforts to improve reading programmes in specific communities should start at their present level of development and make changes only as rapidly as local conditions justify—all programmes, whether new or revised must be adapted to the needs of the areas served. Obviously, the suggestions made in a report of this kind cannot be equally well adapted to the needs of all areas. The aim here is to point out the main problems encountered everywhere in planning sound reading programmes and to describe the kinds of materials and methods of teaching which seem to be most valid generally in the light of tested experience and research. Such proposals provide a framework within which local communities can proceed in developing programmes adapted to the specific conditions and needs faced. In preparing the proposals that follow, use was made of the references cited below.[1]

1. Benzies, D. *Learning our Language*. London, Longmans, Green and Co., 1951, 138 p. (For teachers in African schools where the mother tongue of the children is taught.)

   Cruz González, Adrián and Moya, Bolívar. *Instrucciones para enseñanza de la lectura y la escritura por el método global*. (San José, Costa Rica, 1954.) 7 leaves, processed (Carta circular no. 1 de la Misión de Asistencia Técnica de la Unesco.)

   Donnay, Jacques. *La fonction de globalisation et ses applications à l'enseignement en première*

It is recognized that certain of the proposals cannot be adopted by many communities until larger resources and better trained teachers are available. They suggest goals, however, toward which communities can work through constructive long-time programmes. The need for more and better trained teachers is so urgent that measures for providing them will be discussed in Chapter XII.

AIMS OF TEACHING READING

In planning any reading programme the specific aims to be attained are of major importance, since they influence not only its nature and scope but also the content and methods of teaching. As a help in ascertaining current aims of teaching reading in primary schools, three sources of information were reviewed—first, discussions of the development needs of young children and the role of reading in providing for them; second, reports of the reading demands made on children as they assume their role in community life; and third, primary school reading programmes recently developed in different parts of the world. With the help of these sources, two types of aims were identified which are closely interrelated.

The first group is concerned with the *values* to be secured through reading. Every lesson should contribute to pupil development through emphasis on one or more of the following aims:

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année d'études. 2e edition. Liège, Editions Desoer, 1951, 298 p. (Collection *Plan d'études*, No. 15.)

Dottrens, Robert and Margairaz, Emilie. *L'apprentissage de la lecture par la méthode globale*. 3e edition revue. Neuchâtel, Paris, Delachaux & Niestlé S.A., 1947, 111 p. (*Actualités pédagogiques et psychologiques*.)

Elliott, A. V. P. and Gurrey, P. *Language Teaching in African Schools*. London, Longmans, Green and Co., 1949, 150 p.

Gudschinsky, Sarah C. *Handbook of Literacy*, Norman, Oklahoma, Summer Institute of Linguistics, 1953, 85 p., illus.

Hamaide, Amelie. *La méthode Decroly*. 4e edition. Neuchâtel, Paris, Delachaux & Niestlé, S.A., 1946, 261 p., illus. (*Actualités pédagogiques et psychologiques*.)

Hendrix, Charles. *L'enseignement de la lecture par la méthode globale*. Liège, Editions Desoer, 1947, 87 p., illus. (Collection *Plan d'études*, No. 17.)

International Conference on Public Education, XIIth, Geneva, 1949. *The Teaching of Reading*. Paris, Geneva, Unesco, International Bureau of Education, 1949, 137 p. (Publication No. 113.) Also published in French.

Janušević, M. J. *Metodika nastave pochetnog chitanja i pisanja* (The teaching of reading and writing). Beograd, Pedagoško Društro NR Srbije, 1953, 69 p. (*Pedagoška Biblioteka*, 40.)

Jiménez Hernandez, Adolfo. *El niño y la lectura*. San Juan Bautista de Puerto Rico, 1952, 262 p. + index.

Marinho, Heloisa; Silveira, Juracy; and Lacombe, Mabel J. 'Programa de adaptação a primeira serie', *Diario Oficial*, 31 de maio, 1950.

Mezeix, P. and others. *Méthodes de lecture*. Paris, Editions Bourrelier & Cie, 1947, 85 p., illus. (*Cahiers de pédagogie moderne. Classes maternelles, Sections préparatoires*.)

National Society for the Study of Education. *Reading in the Elementary School*. Chicago, University of Chicago Press, 1949, 350 p. (Forty-eighth yearbook, Part II.)

Polley, Mary E. *Teaching Filipino Children to Read; a Practical Manual for Teachers and Students*. 2nd edition. Manila, The Associated Publishers, 1941, 405 p.

Rio de Janeiro. D.F.O. Prefeitura. Departamento de Educação Primaria. Secretaria Geral de Educação e Cultura. *Vida e educação no jardim de infancia*. Rio de Janeiro, Editora A. Nocte, 1952, 100 p.

Rother, Ilse. *Teaching the Basic Educational Skills*. Report submitted to the Conference on Education and the Mental Health of Children in Europe, Paris, 1952. (Unesco/Conf./EMH/2.)

Schonell, Fred J. *The Psychology and Teaching of Reading*. 2nd edition. Edinburgh, London, Oliver and Boyd, 1946, 128 p.

Zarrilli, Humberto and Abadie Soriano, Roberto. *Metodología de la lectura; desde el deletreo a la globalización. Fundamentos del Metodo Abadie-Soriano*. Montevideo, 1946, 268 p.

To extend the experiences of children concerning things within the range of their environment.
To make their lives more meaningful through an understanding of the experiences of others.
To extend their knowledge of things, events and activities to other places, countries, people, times.
To deepen interest in their expanding world.
To develop improved attitudes, ideals and behaviour patterns.
To enable pupils to find the solution of personal and group problems appropriate to their age level.
To enrich their cultural background.
To provide pleasure and enjoyment through reading.
To develop improved ways of thinking and expressing ideas.
To help them become more familiar with the interests, activities and problems of the community.

The second group of aims is concerned with the development of the reading *attitudes* and *skills* needed to attain the various values listed above:

To develop keen interest in learning to read.
To stimulate the development of an inquiring attitude or a demand for meaning in reading.
To develop accuracy in word recognition.
To promote efficiency in solving simple personal or group problems as one reads.
To develop habits of effective oral reading.
To increase the speed of silent reading.
To cultivate interest in reading and the habit of regular reading for information and pleasure.

The foregoing statement of aims differs in at least three ways from many which appear in recent reports. It focuses attention, first, on the values to be secured through reading rather than on the skills to be developed. It assumes that most, if not all, reading lessons should help to enrich the experiences of children, clarify their thinking, or further their development in one form or another. In the second place, the development of the various attitudes and skills involved in efficient reading is recognized as a means to broader ends. Indeed, the nature and variety of the attitudes and skills that should be emphasized during any reading lesson are determined in large measure by the values sought. Finally, a broader range of reading attitudes and skills has been listed than has been usual in the past. Reading can be used in achieving a much larger number of purposes in primary schools than has previously been thought feasible. This, however, requires the early development of many reading attitudes and skills that have usually been developed during later school years, if at all. Whereas it may not be appropriate or possible in some communities to achieve at present all the aims above, those responsible for developing programmes for immediate use should, nevertheless, have a clear understanding of the broader aims which may sooner or later become desirable.

SCOPE AND ORGANIZATION OF A READING PROGRAMME

Next arise various questions concerning the scope and organization of the programme needed to ensure the attainment of the aims. Many relevant studies have been made in various countries during recent years. One of the chief conclusions reached is that a carefully planned sequential reading programme is needed in each school. This should concentrate at first upon a few vital aims and gradually expand in scope

until pupils are able to engage effectively in the various kinds and purposes of reading normally expected of literate people.

At least three types of information have been used in developing such programmes. The first relates to the nature and extent of the previous experiences of the children to be taught and their chief interests and needs: such information suggests the kinds of reading selections that will prove most effective, the motives for reading that will make the greatest appeal, and the background of experience needed in interpreting what is read. The second type relates to the level of development of the children—mentally, physically, socially, emotionally. Such information is needed in determining the readiness of children for reading, when they enter school, their probable rate of progress, and the nature of the difficulties to be anticipated and overcome. The third type includes records of the progress normally made by children in different aspects of reading. They indicate the probable rate of progress that may be expected in different aspects of reading and the emphasis that should be given to each in teaching.

Through the use of such information it has been found that pupils usually pass through a series of periods, or stages of progress,[1] in becoming good readers: reference was made above to the reading programme in New Zealand organized on this basis. As a result of experiments in many centres, reasonable agreement has been reached concerning the nature of the stages essential in attaining maturity in reading.[1] Four of them are involved in achieving functional literacy. They are defined for use in this report in terms that are applicable to all cultures and languages: Stage One: preparing for reading; Stage Two: learning to read very simple material; Stage Three: promoting rapid progress in mastering basic reading attitudes and skills; Stage Four: acquiring more mature reading interests and habits.

The nature and scope of the reading activities and methods of teaching essential during each stage will now be considered. The suggestions made are based on the results of research and the tested experience of teachers in various parts of the world. The original draft[2] has been modified in the light of constructive criticisms and suggestions received from about fifty specialists in reading in many countries and all continents. The proposals should however, be considered in the light of the specific needs of a community and adopted or modified accordingly. The teaching of handwriting should be closely integrated with that of reading, as discussed in Chapter X.

STAGE ONE: PREPARING FOR READING

This stage includes the period during which children acquire the first-hand experiences and receive the training that prepare them to learn to read eagerly and with reasonable ease—the period before schooling begins until systematic training in reading begins. Obviously, the home as well as the school helps to provide the experiences and training needed. As discussed here, however, Stage One extends from the time a child enters school until he is ready to learn to real.

1. Gray, William S. 'Reading', *Child Development and the Curriculum.* Thirty-eighth Yearbook, Part I, of the National Society for the Study of Education. Bloomington, Illinois, Public School Publishing Company, 1939, Chap. IX.
2. Gray, William S. *Preliminary Survey on Methods of Teaching Reading and Writing*, Parts I and II. Paris, Unesco, 1953. (*Educational Studies and Documents*, No. V.)

EVIDENCE OF THE NEED OF PREPARING FOR READING

That children differ in their maturity and attainments when they enter school has been shown repeatedly. The results, for example, of the tests given by Dr. Lourenço Filho [1] in Brazil, to which reference was made in Chapter V, supplied clear evidence that school entrants in that country vary greatly in several of the mental abilities involved in learning to read.

Other examples are equally illuminating. Vernon[2] studied the vocabulary of 200 children in Scotland, varying in age from 4½ to 5½ years, who were just entering school, using their conversation as the source of information: most of the records varied from about 50 to 200 different words, with an average of 140, but there was an extreme range of from 30 different words for one child to 500 for another! Research[3] during the past three decades has supplied convincing evidence of wide variations in other aspects of the mental, physical, social and emotional development of children; and many of these differences correlate closely with variations in progress in learning to read.

Neither homes nor communities always develop essential interests, knowledge and skills before children enter school. Beatty[4] found that Navaho Indian children reared in homes where reading is unknown come to school quite lacking in readiness for reading: 'They do not even know that language can be expressed in symbols.' Inasmuch as their parents have never read to them they do not know that books are sources of information or interesting stories. Since they do not live in an environment of billboards, signs, newspapers, and public notices they are not familiar with printed forms and have not reached the 'what does it say' stage, normal in children who grow up where printed signs are used widely.

Such findings emphasize the desirability of careful studies of the readiness of children for reading at the time of school entrance and of a preparatory period for all who need it. Note, for example, the recommendation of the Australian Council for Educational Research: 'To ensure that children will not fail in reading when they come to school, there has been a growing recognition that we should not press them and that, for many, normal teaching of reading must be postponed until they are mentally and experientially ready for it.'[5]

Schonell's conclusions are even more emphatic: 'Most children come to school eager to learn to read, but too many of them lose this initial enthusiasm through early failure and discouragement. Why is this so?' It is 'because insufficient care is devoted to creating the correct type and amount of preparatory background for learning to read'. When the facts are known, he adds, 'it is impossible that anyone should doubt the wisdom of a preparatory period in learning to read'.[6] Practically every book[7] relating to the teaching of reading that has been published during recent years has emphasized the importance of adequate preparation for learning to read.

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1. Lourenço Filho, M. B. *Testes ABC para verificaçao da maturidade necessaria à aprendizagem da leitura e escrita*. 4a edição com material para aplicação, São Paulo, Brazil, Ediçoes Melhoramentos (1952). Published also in Spanish by Editorial Kapelusz, Buenos Aires, 1952.
2. Scottish Council for Research in Education. *Studies in Reading*. London, University of London Press Ltd., 1949, Vol. I, pp. 93-123.
3. 'Reading', in Monroe, Walter S., ed.: *Encyclopedia of Educational Research*. Revised edition. New York, Macmillan Co., 1950, pp. 987-90.
4. Beatty, Willard W. 'Reading: a New Skill', *Education for Action; Selected Articles from Indian Education, 1936-43*. Chilloco, Oklahoma, Education Division, U.S. Indian Service, 1944, pp. 153-6.
5. Australian Council for Educational Research. *The Approach to Reading*. Victoria, Melbourne University Press, 1952, p. 6. (*Primary School Studies*, No. 1.)
6. Schonell, op. cit., p. 26.
7. For example, see the lists of references on page 119.

FACTORS AFFECTING READINESS FOR READING

The foregoing discussion suggests several important questions. The first is, what are the most important factors that make for readiness to learn to read? A brief but illuminating answer to this question has been given by the Scottish Council for Research in Education. 'It is obvious that the child at birth is not ready to learn to read. Before he can begin this enterprise he must have sufficient visual acuity to recognize slight differences in the complicated patterns of words. He must have sufficient auditory discrimination to tell one complex sound from another. He must have a sense of orientation both in vision and hearing before he can appreciate the meaningful structure of words seen and words heard. The child who is to learn the art of reading must have some ability in speech, for reading in its early stage consists normally in matching the visual form of a word with its known meaning through speech. Defective speech, whether due to prolonged baby talk or to neural and muscular defect, retards reading attainment. The growth of intelligence is related to reading readiness. Children who are seriously retarded in intelligence are incapable of reading efficiently. The normal child, as he matures, enlarges his experience of the world and extends his vocabulary and powers of oral expression. A steady emotional development is also related to reading readiness. Before the child is ready to read, he must have the power of sustained interest, and that can be retarded or prevented by failure to attain integrated personality.'[1]

A list of more than twenty specific factors which have been found to influence progress in learning to read appears in the Reading Readiness Chart on page 126. The results of related studies show that school entrants, wherever they have been tested, differ greatly in each in each of them. Other studies show that progress in learning to read is greatly increased following effective efforts to correct or overcome weaknesses.

EXTENT OF THE DEVELOPMENT NEEDED

The mental age desirable before reading is begun has been studied more widely than any other factor. The conclusions[2] reached can be summarized thus: (a) a mental age of 6½ years is usually accompanied by rapid progress in learning to read, if pupils are well prepared for reading in other respects; (b) a mental age of 6 is usually accompanied by satisfactory progress if pupils have developed normally in other readiness factors; (c) many pupils who have not acquired a mental age of 6 can learn to read provided the reading materials are very simple and based on interesting, familiar experiences and the methods used are adapted to the specific needs of the learners. Indeed, studies made in Scotland[3] and the experience of several other countries show that children who have developed normally can learn to read at the age of 5 if instruction is adapted to their level of maturity. (Whether or no learning to read is the most important aim of teaching children below a mental age of 6 is a point calling for careful study.)

Children at any mental age level may fail to learn to read if they are seriously retarded or handicapped in other essential aspects of development. Efforts to force them to read under such conditions often result in developing hostile attitudes toward reading and indeed toward all school activities. On the other hand, bright

1. Scottish Council for Research in Education, *Studies in Reading*, op. cit., Vol. II, p. 69.
2. 'Reading', in Monroe, Walter S., ed.: *Encyclopedia of Educational Research*, op. cit., p. 988.
3. Scottish Council for Research in Education, *Studies in Reading*, op. cit., Vol. II, pp. 64-80.

children are often well prepared to learn to read long before they enter school. In their cases to postpone instruction in reading may be as great an error as to try to force immature children to learn to read as soon as they enter school.

Unfortunately the evidence available concerning other requisites for reading do not provide equally objective standards, but these probably include:

A speaking vocabulary that includes all the words used in early reading lessons, and those essential in related teaching and learning activities.

Ability to express ideas clearly, to relate simple series of events or stories, and to report what has been seen or heard.

Ability to use previous experiences in answering questions, making choices, and solving simple problems.

Ability to look and listen with sufficient concentration to note and remember important facts and details.

Ability to identify visual forms and sounds with sufficient accuracy to distinguish one word from another.

Sufficient social and emotional development to be able to take part eagerly and without undue restraint in group activities.

Sufficient adjustment to schoolroom procedures to follow directions and to attend to the task in hand.

A desire to learn to read strong enough to mean a whole-hearted effort in early reading activities.

Each of these attainments is desirable. However, experience and the results of research show that progress in learning to read does not depend on specific levels of attainment in any one of these factors, but rather on the total capacity to learn to read that results from a child's attainments in all of them. It follows that children who are able to learn to read may differ widely in mental ability or in any of the other reading readiness factors.

METHODS OF DETERMINING THE READINESS OF CHILDREN FOR READING

Several methods are now used. Many schools give mental tests to all children at or near the time of entrance. Some of these are given individually to each child,[1] others are group tests.[2] Although group tests are not as reliable as individual ones they require much less time to give and provide results that are very helpful in making decisions. Statistical studies show that there is a positive correlation of about 65 between the results of mental tests and progress in learning to read. Although this is a fairly high correlation, it indicates that factors other than mental ability also influence progress in learning to read.

A second method involves the use of so-called reading readiness tests.[3] These aim to measure attainments in each of several aspects of development which are known to influence progress in learning to read. For example, Figure 11 lists the readiness factors that are measured by the Metropolitan Readiness Tests and includes samples of the specific tests used. The results of such tests correlate as highly as do those of mental tests with progress in learning to read.

1. Revised Stanford-Binet test of intelligence. New York City, Houghton Mifflin Company.
2. *California Tests of Mental Maturity.* Los Angeles, Cal., California Test Bureau.
3. *Metropolitan Reading Readiness Test.* Yonkers, N.Y., World Book Company.
   Lee-Clark Reading Readiness Test. Los Angeles, Cal., California Test Bureau.
   Stevens Reading Readiness Test. Yonkers, N.Y., World Book Company.
   Monroe Reading Aptitude Tests. Boston, Mass., Houghton Mifflin Company.

A third method makes use of one or more of the following steps: (a) observing the characteristics and behaviour of children in their play activities; (b) studying during class periods their responses in various learning activities; (c) getting reports from parents and previous teachers, if any, concerning their interests, language ability, and the general status of their mental, physical, social and emotional development. The information thus obtained is often recorded on a separate sheet for each child. The form which follows is an adaptation of one proposed by Schonell.[1]

READING READINESS CHART

Name of child ....

Date of birth .... Age in years .... and months ....

Results of tests, if any are given:

Mental age .... Intelligence quotient ....

Reading readiness score ....

Estimates of child's development:	1 2 3 4 5[1]
General mental ability	
Background of previous experience	
Range of speaking vocabulary	
Accuracy of pronunciation and related speech habits	
Ability to express oneself clearly to others	
Habit of observing details and forming associations with things seen or heard	
Ability to perceive likenesses and differences	
Ability to recognize relationships	
Ability to keep in mind a series of events or other items	
Ability to think clearly and in sequence	
Ability to make good choices and decisions	
Good health	
A well nourished body	
Freedom from undue fatigue	
Visual efficiency and discrimination	
Auditory efficiency and discrimination	
Emotional balance	
Social adjustment and feeling of security	
Ability to focus on specific learning activities	
Ability to follow directions	
Ability to work effectively in a group	
Interest in pictures and the meaning of written or printed symbols	
A desire to learn to read	

1. 1 = well below average; 2 = below average; 3 = average; 4 = above average; 5 = well above average.

Most teachers are helped by the use of such a reading readiness chart in studying the attainments and needs of their pupils; the best results are obtained when a teacher gives specific attention to a few items at a given time. The findings during a

1. Schonell, op. cit., p. 27.

week or two can be supplemented to advantage by an intelligence or a reading readiness test, if available.

From the time pupils enter school many teachers make use of simple reading activities based upon the immediate interests and experiences of the pupils. The techniques will be discussed in a later section. As pupils engage in such activities the teacher studies their responses. Some will participate eagerly and make rapid progress; others will show little interest and make little or no progress. Such findings are helpful in determining the readiness of different pupils for daily instruction in reading.

A PROPOSED PROGRAMME OF ACTION

In the light of all the facts presented thus far, what plan should a teacher adopt at the time pupils enter school? The fact is recognized that it should vary with community expectations, the age at which children enter school, their level of maturity, and the testing and teaching materials available. The following proposals are for cases where parents expect reading to be taught from the time pupils enter school and where the instructional facilities are limited:

That definite time be reserved from the beginning for reading classes;

That during the first week or two, or even longer if necessary, the reading period be used to study the attainments and needs of the pupils and their readiness for reading. To this end many things of real interest to the children should be discussed as a means of ascertaining their range of experience, their ability to express themselves, and the level and quality of their thinking. Pictures should also be looked at and discussed as a means of discovering their interest appeal and the ability of pupils to interpret them. As such activities go forward the teacher should write on the blackboard words or brief statements made by the pupils and use them in informal reading activities. The eagerness and effectiveness with which pupils participate are very revealing concerning their readiness for reading;

That, as the activities described above go forward, the teacher should observe the behaviour of the children at play and note their responses in other class activities. The interests, abilities, and attainments of the pupils should also be discussed with the parents. If mental or reading readiness tests are available they should also be given. As the teacher becomes increasingly acquainted with the pupils he should indicate on a reading readiness chart his judgment of the ability or attainment of each pupil in the various aspects of development listed;

That those children who show greatest attainment and maturity and who take part eagerly and profit from informal reading activities be given daily instruction in reading in harmony with the suggestions that will be prescribed later for Stage Two: learning to read;

That those who are less advanced and do not take part effectively in informal reading activities be given training and experience making for greater readiness for reading during the reading period and in other school activities. If community expectations are such that the teaching of reading cannot be postponed, very simple reading activities of the type suggested for Stage Two may be provided daily for this group. However, no attempt should be made to force them to advance as rapidly as the more mature pupils, and a good deal of time should be allotted daily to promoting increased readiness for reading.

TYPES OF TRAINING THAT PREPARE FOR READING

The purpose of the learning activities provided will vary among schools, and within given classes, according to pupils' needs. In some cases the chief need is to extend their understanding of all that goes on around them. In other cases it may be to increase their vocabulary and develop their ability to express themselves clearly. In still other cases it may be to promote ability to engage in the solution of simple problems, to distinguish more accurately between things seen or heard, or to stimulate interest in the meaning of written or printed symbols and in learning to read. The good teacher studies the needs of her pupils continuously and provides learning activities which promise to be most helpful in overcoming deficiencies and in promoting needed growth. The following types of activities are widely used:

A daily conversation period in which recent events of interest or plans for the day are discussed. The timid should be encouraged to take part, and those with poor language habits should be helped tactfully in expressing their ideas.

A 'show-and-share' period in which pupils bring things of interest from their homes, and show and describe them to their classmates.

Looking at pictures or observing things and activities, both in and out of the classroom, to enrich experience and correct wrong ideas. Such activities should be followed by vigorous discussions that help pupils focus attention on important points, see likenesses and differences, recognize relationships, and solve simple problems.

Taking opportunity during most periods of the day to extend and enrich the experiences of pupils concerning the social and natural world in which they live, to increase ability to express themselves clearly, and to stimulate interest and an inquiring attitude toward all that they see and hear.

Participation in games and rhythmic activities which provide opportunities for listening attentively, observing closely, and developing good motor co-ordination.

Modelling, using scissors, painting, tracing forms on the blackboard or in sandboxes to develop co-ordination of hand and eye.

Listening to stories and poems, looking at pictures in books, and discussing what has been seen and heard, as an aid in developing interest in stories and in stimulating a desire to learn to read.

Working and planning together to the end that happy cordial relations may be established and emotional tensions reduced.

Providing informal reading activities, based upon the immediate interests of pupils, to help to show them that written symbols convey meanings, to deepen interest in learning to read, and to aid the teacher in finding out when pupils are ready for daily instruction in reading.

The foregoing list of activities can be greatly extended through a study of the references in the footnotes.[1] Their use should be continued until pupils have shown that

1. Basurto Garcia, Alfredo. *La lectura; principios y bases para su enseñanza y mejoramiento en todos los grados de la enseñanza primaria*. Mexico, Luis Fernandez, C., 1953, 223 p. (*Ensayos pedagógicos* II.)
Cruz González, Adrián and Moya, Bolívar. *Instrucciones para enseñanza de la lectura y la escritura por el método global*, op. cit.
Egorov, T. G. *Ocherki psikhologii olychenia detei gramote*. Moskva, Izdatel'stvo Akademii Pedagogicheskikh Nauk, R.S.F.S.R., 1950, p. 15. (*Pedagogicheskaia Biblioteka Uchitelia*.)
Freinet, C. *Méthode naturelle de lecture*. Cannes (Alpes-Mar.), Editions de l'Ecole Moderne Française, 1947, 59 pp. illus. (*Brochures d'éducation nouvelle populaire*, No. 30, mai 1947.)
Gudschinsky, Sarah, *Handbook of Literacy*, op. cit., pp. 9-14.
Hildreth, Gertrude. *Readiness for School Beginners*. Yonkers-on-Hudson, N.Y., 1950, p. 382.
Jiménez Hernández, Adolfo, *El niño y la lectura*, op. cit., pp. 21-49.
Monroe, Marion. *Growing into Reading*. Chicago, Ill., Scott, Foresman and Co., 1951, p. 274.

they can master the skills involved in beginning reading activities. The time required varies both among schools and among pupils within a school. In the case of many children only two or three weeks are needed; in other cases a much longer period. It may seem on first thought that to delay the teaching of reading is a waste of time. Experiments show on the contrary that pupils who receive needed preparation more than make up the time devoted to it by the greater progress made later in learning to read; forcing a child to learn to read before he is ready usually results in confusion, failure, and a hostile attitude towards reading.

STAGE TWO: LEARNING TO READ VERY SIMPLE MATERIAL

As soon as pupils acquire keen interest in learning to read and show that they can master the basic skills involved in simple reading, they are ready for Stage Two. The chief aims of teaching reading during this stage are:

To deepen interest in reading and in learning to read well.

To cultivate a thoughtful reading attitude and the habit of looking for meaning in all reading activities.

To develop basic skills in word recognition appropriate to the language involved.

To promote steady growth in ability to read simple material, both orally and silently, with ease and understanding.

To awaken interest in independent reading.

To increase readiness for the broader range of reading activities that will follow.

One chief goal of Stage Two has been achieved when children can read simple interesting material eagerly, with little or no help, and with absorbed attention to its meaning. The attainment of this goal is important for several reasons. It shows that pupils have acquired the basic attitude and skills involved in securing meaning from written or printed symbols. It enables them to begin to use reading in satisfying interests and in acquiring information. It also prepares them for Stage Three, which aims to promote rapid progress in ability to read well.

CONDITIONS ESSENTIAL FOR RAPID PROGRESS

Progress in achieving the foregoing aims is influenced by many factors. First, a primary school programme which is adapted to the present attainments and needs of the children and which seeks to promote their all-round development; through daily conversation and tactful guidance it should extend the vocabulary of the pupils and improve their power of expression. Through directed observations, projects of various kinds and pointed discussions, it should enrich the understanding of pupils and cultivate interest in all aspects of their social and natural environment. Also important are activities that promote their physical well-being, greater motor control, and ability to make visual and auditory discriminations.

From the time pupils enter school, informal reading activities should be carried on during various periods of the school day. For example, pupils soon learn to locate the work materials they need by recognizing names on boxes or shelves; they study

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National Society for the Study of Education. *Reading in the Elementary School*, op. cit., pp. 57-70.

Roe, Frances. *Fundamental Reading: the Teaching of Reading in Infant Schools.* London, University of London Press Ltd., 1944, pp. 6-21.

Schonell, op. cit., pp. 30-6.

Vermeulen, A. 'De studie van het milieu en het aanvankelijk Leesondervijs', *Person en Gemeenschap*, Vol. V, No. 2 & 3, pp. 136-40, 210-15, 1950. Antwerp.

the words under pictures to find out what they say; they learn to read brief news items on the notice board; they follow directions which the teacher writes upon the blackboard. They thus come to realize that words represent meanings. They also deepen interest in reading and promote rapid progress in learning to read. In a large number of schools, simple books relating to health, social studies, the outdoor world and numbers are used to enrich the experiences of pupils during class periods devoted to the study of these subjects.

Learning activities of the type just described can be carried on best in classrooms which are well equipped and attractive. The equipment needed will vary, of course, with the community and the nature of the learning activities. In addition to good lighting and comfortable seats the things most needed are: a notice or bulletin board on which interesting news items can be posted; pictures to hang on the walls; shelves for exhibiting materials of general or special interest; tables on which individual or group projects can be developed; construction and play materials; simple picture books attractively arranged on a table; and shelves or cases for the various kinds of reading materials provided. Many schools cannot be equipped at once with all these. The proposals made, however, suggest types of material which, over a period of time, schools should try to obtain.

Without doubt the most important factor in promoting both the general development of children and their progress in reading is the teacher. She should have a deep interest in children, understand their characteristics and needs, and be able to establish cordial relation with and among them. She should also be familiar with effective teaching procedures. As many teachers in less well developed areas have had little or no training, the need is urgent for establishing agencies that will provide preparation for prospective teachers and help for teachers in service.

READING MATERIALS

As to the kind and amount of reading material provided, many changes have occured in this respect during the last few decades, and it seems advisable to review some of these developments briefly. Formerly most schools used only a primer. In the course of time, however, the typical primer was found to be quite inadequate. It focused attention almost wholly on the development of skill in word recognition. The content was of little interest to children; new words were introduced so rapidly that they could not be mastered; and the material was insufficient in amount to ensure the development of fluent and thoughtful readers. To overcome these limitations an effort was made to provide reading materials of greater interest to children, to introduce new words more gradually, and to increase the amount of material to be read by providing both a primer and first reader for use during the first school year.

It became clear that very young children and slow learners would be greatly aided in learning to read through the use of still simpler material. Many schools began to use for the first reading lessons very simple pupil-teacher prepared materials, known as 'experience charts'. As soon as the advantages of this plan had been clearly demonstrated, textbook publishers began to prepare booklets, aptly called 'pre-primers', to precede the use of their primers. With this addition the reading materials used during the first school year thus included one or more pre-primers, a primer and a first reader.

The desirability of other changes soon became evident. It was found that small booklets rather than large books could be handled more effectively by young pupils, and the basic reading material for use during the first year is now often published in the form of six or more booklets of about 50 pages each. To increase the appeal,

in some series every book is given an attractive title based upon its content. Finally, supplementary aids to learning have been developed for use with each book in a series. They include word and phrase cards for use in sentence building and helping rapid recognition; work books which contain practice and exercises in many aspects of beginning reading; and texts which aid in determining the progress of pupils and in identifying individual difficulties and needs.

Paralleling these developments, changes have occured in the time devoted to basic instruction in reading. Formerly, when primary schools devoted themselves almost exclusively to teaching children to read and write, each reading class recited three or four times daily. As school programmes were broadened, the number of reading lessons a day was gradually reduced. Current practice in well organized schools favours two basic reading periods, one in the morning and one in the afternoon.

At least three successive tasks are faced in teaching reading during Stage Two. They are 'establishing initial reading attitudes and habits'; 'teaching pupils to read continuous verbal text'; and 'promoting independence in reading'. The detailed problems of teaching reading during Stage Two will be discussed under these headings. The chief purpose is to point out desirable trends and sound procedures. Many schools will not be able to make use at once of many of the suggestions, but by adapting them in so far as they meet local conditions, each school may be able to improve the scope of its programme and the efficiency of its teaching.

ESTABLISHING INITIAL READING ATTITUDES AND SKILLS

We have noted above the chief aims of the early steps in teaching pupils to read. The time required to achieve these aims varies from about four or five weeks in the case of the quickest learners to ten weeks or more in the case of the slower ones. It is far more important that each pupil acquire these basic attitudes and skills well than that all pupils advance rapidly and at a uniform pace.

The Use of Teacher-pupil-prepared Materials

Two types of reading material are used in establishing the initial attitudes and skills: either experience charts or pre-primers. Pupil-teacher-prepared experience charts are based on the immediate interests and experiences of the specific pupils taught. As a rule, only a few words and sentences appear in the first charts used. For example, after discussing the things they did in school, one group prepared the following sentences which were used as a reading lesson: We play; We work; We sing; We read.

After the pupils had, with the teacher's help, prepared these sentences, they talked about the games they played, the work they did, the songs they sang, and why they wanted to learn to read. Such discussions help to expand the meanings of specific words and to increase the number of associations aroused as the pupils read, and new words are thus learnt more quickly. Reading becomes a process of thinking and a rewarding activity from the beginning. Suggestions for making experience charts are given in the references in the footnotes.[1] Additional examples are described on pages 161-3.

The global method has proved to be the most effective in establishing the initial

1. Chart Making Committee of the Madison Public Schools. *The Use of Charts in the Primary Grades*. Madison, Wisconsin, Curriculum Department Madison Public Schools, 1949, p. 46.
Committee of the Division of Instructional Research. *Experience Charts: a Guide to their Use in*

reading attitudes and skills involved in reading for meaning. Each sentence used is first read as a whole. Soon, however, attention is directed to specific words; these are then combined with other words which the pupils know to form sentences. The sentences are written upon the blackboard and read both by the group as a whole and by individuals. Each new word used is later written on a card, the cards being used from time to time in testing the pupils' mastery of the new words. They are also used in class and by pupils at their desks in making simple sentences. The use of the global method in which words or even syllables rather than sentences are used at the beginning has been discussed by Gudschinsky.[1]

As pupils acquire a thoughtful reading attitude and a small vocabulary of words, known by their general form and particular features, attention is directed to the details of words. Many devices are used. The teacher may write two words on the blackboard and call attention to differences in their form. In alphabetic languages pupils are also encouraged to note differences in the sounds of words and to identify words that begin or end alike. In languages in which words are composed largely of oft-recurring syllables, such as Spanish and Portuguese, attention is specifically directed to them.

In some countries, pupils make their own copies of an experience lesson after it has been read from the blackboard. If the teacher insists that they copy it correctly they are forced to look at each word carefully. Another plan used in several parts of Europe is to have the pupils set up type for printing the experience lesson, through the use of primer-sized type provided in the classroom. Other methods used in promoting rapid progress are described in the references given in the footnotes.[2]

Opinions differ as to the wisdom of using experience charts. For the reason stated earlier some leaders, even in less well-developed areas, favour their use and affirm that their teachers use them effectively. Many other leaders question their use because of the time required to prepare them, lack of duplicating materials and inability of teachers to prepare them in acceptable form. These differences appear to be associated more directly with local conditions than with geographical, cultural or linguistic factors. Even though experience charts may not be used for initial reading lessons, all teachers should acquire the art of preparing simple reading material because of its great value as a supplementary aid to teaching in many school activities.

The Use of Pre-primers or other Simple Reading Booklets

As mentioned above, pre-primers, or very simple reading booklets, are today used widely in establishing initial reading attitudes and skills. If properly prepared they are based on the common experiences of children, each lesson taking the form of a simple interesting story or episode in child life, and being presented by pictures

Grades 1-3. New York, Bureau of Educational Research, Board of Education of the City of New York, 18 pp. (*Educational Research Bulletin* No. 13, May 1952.)

1. Gudschinsky, Sarah C. *Handbook of Literacy*, op. cit., pp. 25-55.
2. Dottrens and Margairaz, op. cit., pp. 76-9.
   Hamaide, op. cit., pp. 108-49.
   Mezeix, op. cit., pp. 39-44, 75-87.
   National Society for the Study of Education, op. cit., pp. 71-8.
   Polley, op. cit., pp. 96-134.
   Pourtois, M. C. 'Les Échanges interscolaires. L'imprimerie. Les revues enfantines', in: Belgium. Ministère de l'Instruction Publique. Direction de l'Enseignement Primaire. *L'enseignement de la lecture: semaines d'information et de perfectionnement pédagogique, organisées en 1951 aux écoles normales de l'Etat à Laeken et à Tournai à l'intention du personnel enseignant primaire*. Bruxelles, Moniteur Belge, 1951, pp. 61-81.
   Schonell, op. cit., pp. 34-43, 103-20.

and a small number of words, phrases or short sentences. An example is given in Figure 9 (p. 99). At the beginning most of the incidents of the story are told by means of pictures, but gradually the verbal text becomes more important. Early reading lessons of this type ensure an interesting approach to reading, and provide practice in the reading of materials in which the vocabulary is carefully controlled. A thoughtful reading attitude and a basic sight vocabulary are acquired rapidly.

As a rule the teaching of each lesson in a pre-primer is divided into four stages which follow each other in orderly fashion. The first is called 'preparing for reading', and provides a background for the lesson by discussing incidents in the lives of the children. As these incidents are discussed the new words of the lesson are used in oral discussion and written on the blackboard. The child's interest in and curiosity about the story to be read is aroused.

The second stage is called 'interpreting the story'. The pupils are first called upon to study the pictures, so as to find out what the story is about. As they do so they recall relevant experiences of their own, recognize interesting relationships and anticipate what the verbal text says. As important words used in the book fit into the discussion, they are written on the blackboard, and then read. Thus the picture and verbal text are integrated and pupils are prepared to read the story as a unit.

The third stage is called 'extending skills and abilities'. Special questions, directions and exercises promote memory of word form, visual discrimination between words, auditory perception of syllabic or consonant sounds, meaning associations with words, grasp of story events in correct sequence, and formation of sensory images.

The fourth step in the lesson is called 'extending interests'. Through discussions, creative activities, and listening to stories and poems read by the teacher, thinking is stimulated and keen interest in reading developed.

Early reading lessons based on the use of experience charts and of simple reading booklets differ somewhat both in the kind of materials included and the stages in the teaching; but they seek to achieve the same ends. The learning activities involved are simple and interesting, and children of normal capacity can make rapid progress. However, a good teacher studies daily the responses and needs of his pupils and ascertains the nature of the difficulties faced by each. He keeps a record of the facts observed and provides the kinds of group and individual help needed. He knows that the progress made later by each child depends in large measure on how well he masters the early steps involved in learning to read.

TEACHING PUPILS TO READ CONTINUOUS VERBAL TEXT

As soon as pupils have acquired the initial reading attitudes and skills described above they are prepared to begin the use of a primer, or a book of similar difficulty. The aims now broaden in scope, with special emphasis upon the following: to strengthen the habit of looking for meaning in all reading activities; to establish the habit of following the lines regularly; to anticipate and keep in mind the sequence of ideas read; to encourage the habit of interpreting what is read in the light of personal experiences; to increase accuracy and independence in word recognition; and to deepen interest in learning to read well. A strategic goal has been reached when pupils are able to engage in the continuous and understanding reading of very simple material, with a limited amount of teacher guidance.

Many schools continue to base reading lessons upon the experiences and everyday language of the pupils. These lessons increase gradually in length and in the

number of words used. Whenever possible they are printed, or duplicated in some way, and bound into booklets. Drawings prepared by the pupils appear on many of the pages. When completed the booklets form a record of experiences that have real meaning for the pupils.

Most schools use author-prepared primers or similar booklets having different titles. Recent primers are as a rule based on the common interests of young children and expressed in everyday language. Interest in their content is increased through the use of the same characters throughout a book, in the form of a series of short stories based upon the daily activities of the characters. The primer should be well illustrated with pictures that aid in recognizing words and grasping meanings, but the proportion of the space devoted to verbal text should steadily increase.

To achieve the aims outlined above, there should be guided reading of about 125 pages of material. If the primer is preceded by the use of experience charts or pre-primers the first 20 pages, more or less, should consist of material limited to the use of words already learnt.[1] This enables pupils to gain confidence, to focus attention on the meaning of what is read, and thus to secure pleasure through reading. Beyond this point new words should be introduced at the rate of about one word per page. Each new word should be used at least 15 times soon after it is introduced, and repeated more or less frequently throughout the primer to ensure its recognition at sight. By the end of the primer period, which requires from 10 to 20 weeks, pupils should be able to recognize at sight about 150 of the most frequently used words in the language.

The general procedure in teaching a lesson is similar to that outlined for the pre-primer. To prepare pupils to read a story, the teacher should encourage pupils to discuss similar personal experiences. As new words in the lesson are used in the discussion they should be written upon the blackboard and attention directed to them several times. Other words which are similar in form may be written above or below them and differences noted.

The next step is to guide pupils in reading the lesson. They first study the pictures to find out what the story is about and then look at and discuss the title. By means of a carefully worded question the teacher directs attention to the opening sentence. As soon as the pupils are ready to do so they answer the question by reading the sentence. This is followed by another question such as, 'What do you think will happen next?', and the search continues line after line to find out the events of the story. Gradually the questions broaden in scope to cover two lines, three lines, and finally an entire page.

By such guidance the pupils are enabled to discover that a story consists of a sequence of events and they soon learn to find out how it begins, what the chief events are, and how it ends. By means of other questions they are led to compare what they read with their own experiences, to recognize similarities and differences, and to discover ways in which they can use some of the ideas in the story in their daily activities. A broad foundation is thus laid for a clear grasp of the meaning of what is read and for thoughtful reaction to the ideas acquired. Such reading is only possible when not more than one or two new words are introduced on each page.

During the first reading of a lesson words which are not recognized readily should be pronounced by the teacher. This is advisable because the pupil's attention should, during the first reading, be kept primarily on the meaning of what is read. The teacher, however, keeps a list of the words that cause difficulty and later gives special help on them. He notes carefully how well the pupils are able to follow the

1. If the primer is the first book used, the pupils will not be able to advance as rapidly as those who have had previous training. During the first third of the primer, teachers should give detailed guidance similar to that outlined in the preceding section of this chapter.

lines regularly from the beginning to the end, and to go from the end of one line to the beginning of the next. Pupils who have difficulty may be aided by placing a strip of cardboard under the line to be read and moving it from line to line as the reading proceeds. Additional suggestions for promoting progress during this part of the reading lesson may be found in the references listed in the footnotes.[1]

The third step is to provide practice in various reading skills and abilities. Sometimes it may be desirable to get a better mastery of words that are not well known. The teacher may write them on the blackboard in simple sentences to be read; he may present word-cards on which they are written or printed, or may help the pupils to identify differences between their form and that of other words which they know. Pupils should grow steadily in their mastery of word elements and their use in recognizing new words.

In the case of highly phonetic languages[2] rapid progress should be made in learning the form and sound of the various letters, in combining word elements to form words, and in using the pupil's knowledge of them in recognizing new words. In those languages in which syllabic elements are prominent, it is important to identify the most frequently occurring syllables and to develop skill in using them in recognizing new words. In languages in which the spelling and sounds of letters are irregular, far less progress in mastering word elements is possible during the primer period—no effort should be made, as a rule, to learn a specific word element until it has occurred several times in the words known at sight and will be used frequently in the reading lessons that follow.

Special types of training needed for certain languages should also be emphasized during periods devoted to extending skills and abilities. For example, pupils need help when learning to read Arabic and some other languages in mastering diacritical marks as clues to the sounds of vowels which are not printed. Similarly, in learning so-called 'tonal' languages, pupils need help in mastering the marks used to indicate differences in inflection and meaning.[3] All such characteristics should be met first as parts of meaningful units.

The foregoing examples suggest only a few of the types of training needed in extending reading skills and abilities. Primers now offer various suggestions, in the teachers' guides or through practice exercises in work books that accompany the primers. In some cases appropriate exercises are included in the primer on one or more pages following a lesson in which new items to be learned are introduced.

During recent years rapid progress has been made in developing techniques for ascertaining the progress and needs of pupils in reading. Much emphasis has been given to the importance of careful study by the teacher of the errors and difficulties of each pupil. By focusing attention for a few days on the problems faced by one or more pupils, rapid progress can be made in ascertaining the specific types of help needed. It is useful to keep a record not only of specific difficulties but also of their probable causes—lack of interest, general immaturity, inability to see or hear well, extreme nervousness or emotional instability.

As an aid in studying the needs of pupils, two kinds of tests are now available. One is a general test of reading ability appropriate to the child's level of advancement. Examples of the types of reading exercises included in one such test appear in Figure 12. They measure the extent of a child's meaning vocabulary and his ability to

1. National Society for the Study of Education. *Reading in the Elementary School*, op. cit., pp. 70-9.
   Polley, op. cit., pp. 134 et seq.
   Schonell, op. cit., Chaps. III and IV.
   Roe, op. cit., pp. 24-36.
2. Gudschinsky, Sarah C. *Handbook of Literacy*, op. cit., pp. 25-55.
3. ibid., pp. 56-8.

understand the meaning of phrases, sentences, directions and paragraphs. Such a list reveals not only the comparative ability of pupils within a class but also how the class as a whole compares with other first year classes.

A second type of test is shown in Figure 13. It was prepared by the publishers of a primer with a view to measuring the progress of pupils in the specific abilities and skills which are emphasized in teaching. By giving the test according to directions and then discussing the responses of each pupil with him, a reasonably clear understanding of the problems of each child can be arrived at. On the basis of such findings teachers plan special help and practice for small groups and individuals according to their needs.

DEVELOPING INDEPENDENCE IN READING

By the time pupils complete a primer and related reading activities, they should be able with little teacher guidance, to engage in the continuous reading of interesting material within a vocabulary range of some 150 words. The remaining aims during Stage Two are progress in all the basic reading attitudes and skills until pupils are able to read simple material independently, with real interest in the content, and begin to engage in some self-initiated reading.

As a rule, the basic reading material used in achieving these aims consists of a first reader, or a similar book or books. It contains some 150 pages on the average, and a corresponding number of new words. Pupils usually acquire a reading vocabulary of about 300 words by the time they complete Stage Two. Many schools which use only pupil-teacher-prepared material report the mastery of about the same number of words by the end of the first year.

These basic reading materials are used daily, preferably during the morning reading period. The methods employed in teaching are similar in principle and involve the four steps used during the primer period. During class activities approximately equal use is made of oral and silent reading and pupils are helped both to grasp and interpret the meaning of what is read and to develop increased accuracy and independence in word recognition. In the case of a highly phonetic language, by the end of the first year most of the basic facts and principles involved in the recognition of new words have been introduced; in the case of less phonetic languages, only the simpler and more widely used aids can advantageously be introduced. As to those languages which use word concept characters or syllabaries, or both, and which make use of a supplementary system of phonetic symbols as aids in recognizing words, there is usually complete mastery of the latter by the end of the first year.

During afternoon periods an effort is made to establish the habit of reading independently, with full attention to the meaning of what is read. Various types of material are used for this purpose. Some publishers have prepared supplementary booklets, relating to a variety of interesting topics, to be read parallel to the first reader; certain schools use the primers of other series of readers or very simple library books. Where none of these materials are available, many teachers require much re-reading of the basic primer and first reader, but always for a new purpose. They also write upon the blackboard or prepare duplicate copies for the pupils of simple, interesting material[1] secured from various sources. Teachers who use pupil-prepared materials have the children read the booklets prepared by previous classes.

1. Hildreth, Gertrude. 'Improving Reading with Script Text', *Elementary School Journal*, Vol. LIII, March 1953, pp. 387-95.

The need for supplementary reading material is so great that various plans have been developed for providing it.

At the time such reading material is assigned, the teacher and the pupils usually study together the title and pictures that accompany a story. As they do so they anticipate the events of the story and may prepare questions that they hope will be answered in the story. They then read and discuss together the events of the first page. Really interested and with definite questions in mind, each pupil reads independently the remainder of the story. In the meantime the teacher observes the reading habits of the pupils and gives any necessary help. When most, if not all, of the pupils have finished reading the story, they discuss its content under the guidance of the teacher. By beginning at first with very simple materials, pupils make rapid progress in ability to read independently and thoughtfully.

As pupils make progress, without the teacher's help they usually begin to engage in self-initiated reading. Various plans are used in stimulating such interest—for example a reading table in the classroom on which simple, interesting books are displayed. The pupils are encouraged to go to this table at any free period during the day to look at the pictures and to read whatever interests them. Another device is to read parts of some of the stories to the pupils, stopping at the most interesting points. As soon as the pupils begin to read independently either in school or at home, they should be given an opportunity to report what they have read to their classmates. This not only gives an added incentive to the one who reports but may awaken or increase interest on the part of others.

Studies of the achievement and needs of pupils in reading should continue throughout the latter part of Stage Two. The sooner pupil's difficulties are identified the more easily they can be overcome. To find time for special help for those who need it, the pupils who have advanced most rapidly should be given frequent opportunity to read simple material independently. This will not only give them a type of practice which they need but will mean more time for individual help for others. Every effort should be made to try to help all pupils reach the goals of Stage Two by the end of the first year. Slower learners should not, however, be forced unduly. They should be permitted to continue at the beginning of the second year from the point reached at the end of the first year.

STAGE THREE: PROMOTING RAPID PROGRESS IN MASTERING BASIC READING SKILLS

As soon as pupils have learned to read simple material independently and with interest in its meaning, they are ready for Stage Three. This stage extends over a period of about two years, during which pupils should make rapid progress in mastering the basic attitudes and skills involved in fluent, thoughtful, silent reading and good oral reading. The chief aims of teaching are:

To deepen interest in reading as a source of pleasure and information.

To extend the interests of pupils through both guided and independent reading.

To promote rapid growth in ability to secure a clear, accurate understanding of what is read.

To develop the habit of reacting thoughtfully to the ideas acquired and of using them in clarifying understanding, developing right attitudes and solving problems.

To increase the number of words recognized quickly at sight to some 2,000.

To develop word-attack skills so that pupils can recognize and pronounce independently all new words in the materials read that are within their speaking vocabulary.

To increase the rate of silent reading somewhat beyond that of oral reading.
To improve the quality of oral reading.
A very important goal has been reached when pupils are able to read fluently and well, both orally and silently, any material that is within the vocabulary range suggested above and that relates to their everyday experiences. Many types of training help to achieve the foregoing aims. They will be discussed under five headings: developing increased ability to read; making desirable habits permanent; correcting or eliminating poor reading habits; furthering a permanent interest in reading; using reading in other school activities. Each of these topics could take a whole chapter, but here they can be discussed only in brief outline. The references[1] listed in the footnotes will be found helpful as supplementary sources of information.

DEVELOPING INCREASED ABILITY IN READING

During one period each day, a rapid increase in the basic attitudes and skills of reading should be aimed at. For this purpose, one or more graded readers should be used each year. These should include at least three types of material: selections based on the common experiences of children; the best stories or folklore, appropriate for children of this age group, that the literature of the language provides; informational selections at first within the range of the familiar but gradually broadening in scope. In planning lessons based on such materials the teacher should aim at progress in at least the following important aspects of reading:

Understanding and Interpreting what is Read

The development of increased ability to understand and interpret what is read requires daily emphasis throughout this period. During the first guided reading of a story or informational selection, pupils should find out first what the selection is about—if it is story material, who the characters are, the chief events in the story, how it ends, important things the characters say and do, and why. If it is informational material they should identify the problem or topic discussed, the main facts presented and conclusions reached. Following the first reading, there should be much re-reading and discussion to correct and clarify the pupil's understanding of the topics discussed, to see the relationship of the events or facts presented to their own experience, to grasp implied meanings, or to make fuller use of the ideas secured in solving group or personal problems.

Accuracy and Independence in Word Recognition

Pupils should acquire the skills needed to identify all the words that are within the range of their oral vocabulary. This means that all word-attack skills must be mastered except those required in the recognition of longer, less frequently used and technical words found in special subjects such as history, science and arithmetic. The problems vary with different languages. In those which use concept characters or syllabaries, or both, rapid progress should be made in the development of skill in applying the supplementary phonetic symbols used in identifying words. In highly

1. National Society for the Study of Education. *Reading in the Elementary School*, op. cit., pp. 93-126.
Polley, op. cit., pp. 182-232.
Russell, David E. *Children Learn to Read*. New York, Ginn & Company, 1949, Chap. VII.
Saez, Antonia. *La lectura, arte del lenguaje*. San Juan, Puerto Rico, [Imprenta Venezuela], 1948.
Schonell, Fred J. *The Psychology and Teaching of Reading*, op. cit., Chap. V.

phonetic, alphabetic languages, pupils should progress rapidly in applying the word elements learned during Stage Two, and acquiring any new knowledge and skills essential.

In the case of other alphabetic languages, pupils should improve steadily throughout Stage Three in the mastery of all word-attack skills[1] needed in recognizing words in their oral vocabularies. The new knowledge and skills should be acquired through directed study of words that have already appeared in reading lessons; special practice exercises should be prepared to facilitate their mastery. Responsibility should be gradually imposed on pupils to apply them in both directed and independent reading. Rapid progress in ability to recognize new words is so important that the training needed must not be neglected.

Effective Oral Reading

Pupils should frequently review the points to be kept in mind when reading to others—such as to read accurately and distinctly, and loud enough for all to hear easily, and to express clearly the ideas to get over to the listeners. At times, they should study selections specially to find out how different parts may best be read to make the meaning clearer to others, for example, vivid descriptions, humorous passages, conversations. Of great value are so-called motivated oral reading periods, in which each pupil chooses a selection he would like to read to the class and prepares it. It is also helpful for pupils to plan for and participate in dramatizations of selections that are adapted to that purpose.

MAKING DESIRABLE HABITS PERMANENT

One of the urgent needs during Stage Three is to acquire greater ease and fluency in reading. This aspect is often neglected in the effort to obtain rapid progress in reading increasingly difficult material, and as a result pupils fail to do much independent reading in school and little or no reading after they leave it. As an aid in overcoming these difficulties pupils should have an opportunity to read a good deal of material that is somewhat simpler than the basic reading material used during the morning reading period. For this purpose various types of material are used: simpler books of other basic reading series; library books that are correspondingly easy; supplementary material that accompanies some series of readers. If none of these materials are available, teachers either write simple material on the blackboard or make duplicate copies of it for pupils to read.

In 'sight oral reading lessons' the title may be read, the pictures studied, and interest aroused in the content of the story through a discussion of the pupils' experiences. Before a pupil begins to read, questions may be asked concerning the events of the story. Following the reading of each unit there should be a discussion in which the pupils are encouraged to raise questions to be answered through the reading that follows. They thus acquire the habit of reading with an inquiring mind. As each pupil reads, the teacher should make a note of the kinds of word difficulties which he comes up against and give help at the end of the class period, or later.

Group silent reading is as important as oral reading. It may be introduced in the same manner as the sight oral reading described above. Paragraphs or longer units are read in response to questions. Following the reading of each unit the facts read

1. Gray, William S. *On Their Own in Reading*. Chicago, Scott Foresman and Company, 1948.
   Preston, Ralph C. 'Comparison of Word Recognition Skills in German and American Children', *Elementary School Journal*, Vol. LIII, April 1953, pp. 443-6.

should be discussed and problems raised by the pupils used as guides in reading the next unit, this procedure being followed until the story is completed.

Equally valuable is individual silent reading under the guidance of the teacher. After interest has been aroused in reading a story, the pupils may be asked to read it silently. As they do so, the teacher observes them for evidence of difficulty in recognizing words or in grasping meanings, and needed help may be provided at once. At the conclusion of the lesson, the incidents of the story are discussed. If a good supply of library books is available each pupil can choose the one he wants to read. This plan heightens interest in reading and results in greater concentration of attention, increased effort and rapid improvement in ability to read quickly and easily.

CORRECTING OR ELIMINATING POOR HABITS

As pupils advance through Stage Three, the methods normally used in group instruction are often not adequate to overcome the difficulties of some pupils. Reports from practically all countries refer to the problems created by retarded readers. Intensive studies are being made to ascertain the causes of slow progress and the best ways to help.

In general, poor readers belong to one of three groups. The first includes the slow learners who tend to lag behind their classmates in all learning activities; in a large majority of such cases, they are making as rapid progress as their capacity to learn will permit. It is inadvisable to try to force them to advance as rapidly as average or above-average learners. They need planned teaching to ensure the best progress they are capable of making.

A second group are mentally capable of making normal progress, but for one reason or another the instruction given has not been adapted to their needs. It may have failed to enlist their interest and co-operation. The books used may have been uninteresting or too difficult, or poorly adapted to their individual requirements. They may have had poor teachers; may have been absent from school for a time when important aspects of reading were taught; or the home may give little encouragement. For these and other reasons there are some pupils in each class who need special help. The first problem for the teacher is to ascertain the specific nature of their weaknesses, e.g. inability to recognize words, poor grasp of meaning, inability to follow the lines. In this connexion use should be made of daily observations and of tests of reading ability; we mentioned earlier the value of specific tests which accompany readers and to general tests of reading ability. (References to descriptions and sources of reading tests for use with children are given in the appendix to this and the following chapter.) As soon as a pupil's weaknesses have been identified steps should be taken to provide either small group or individual help. To a large extent the methods used in corrective or remedial work are similar to those used regularly in teaching reading by good teachers. Special diagnostic techniques and corrective procedures are discussed in the references listed in the footnotes.[1]

1. Birmingham. University. Institute of Education. *Remedial Education Centre; First Annual Report, 1948-49*. By Fred J. Schonell and W. D. Wall. Birmingham, [1949], 28 p.
   Conference on Reading, University of Chicago, 1953. *Corrective Reading in Classroom and Clinic*. Comp. and ed. by Helen M. Robinson. Chicago, University of Chicago Press, 1953, 256 p. (*Proceedings; Chicago University Department of Education. Supplementary Educational Monographs*, No. 79.)
   Dolch, Edward William. *A Manual for Remedial Reading*. 2nd ed. Champaing, Ill., Garrard Press, 1945, 460 p.
   Duncan, John. *Backwardness in Reading: Remedies and Prevention*. London, George G. Harrap & Co. Ltd., 1953, 96 p.

A third group of poor readers are mentally able to learn to read, but suffer from one or more handicaps that seriously interfere with progress. It may be poor vision or hearing, ill health, extreme nervousness, immature language development, emotional difficulties. Intensive studies of such cases are being made in various countries, and experiments carried out to ascertain the nature of the therapy and training essential. Examples of the findings and proposals for the diagnosis and remedial treatment of seriously retarded readers are given in the references[1] in the footnotes.

PROMOTING PERMANENT INTERESTS IN READING

Throughout Stage Three continuous effort should be made to broaden and deepen interest in self-initiated reading. Many of the activities already described contribute to this end. In addition, teachers make special efforts to secure as many interesting, attractive books as possible for the reading table in the classroom, and encourage pupils to spend any free time in reading them at the table or their desks. Special periods are also reserved, two or three times a week or daily, when pupils may read books of their own choice. During such periods the teacher not only observes the reading habits of pupils but also talks with those who are least interested, in an effort to discover the kinds of material that would interest them most. At times the pupils gather around the teacher, discuss the stories they have enjoyed most, and read portions of them to their classmates. The teacher may introduce a new book which he has secured for the reading table by telling enough about its contents to stimulate the pupils to want to read it. Interest in current events is cultivated regularly through the use of a bulletin board on which important school and community events are posted daily. A broad basis is thus established for developing interest during Stage Four, in the reading of newspapers.

READING IN OTHER SCHOOL ACTIVITIES

As pupils improve, more and more use should be made of reading material as an aid to learning in all school activities. If simple books are available relating to such fields as the social studies, the outdoor world and arithmetic, the pupils should be guided in reading them with the same care as during the daily reading lesson. Special

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Harris, Albert J. *How to Increase Reading Ability: a Guide to Individualized and Remedial Methods.* 2nd ed., rev. and enl. London, New York, Longmans Green and Co., 1947, 582 p.

Kottmeyer, William. *Handbook for Remedial Reading.* St. Louis, Mo., Webster Publishing Co., 1947, 179 p.

Schonell, Fred J. *Backwardness in the Basic Subjects,* [2nd ed.] Edinburgh and London, Oliver and Boyd, 1945, Chaps. I-XII.

1. Borel-Maisonny, S. (Mme.). 'Comment on apprend à lire; méthode combinée... spécialement pour enfants présentant des troubles du langage et rencontrant des difficultés', *Psychologie de l'enfant et pédagogie expérimentale,* bulletin No. 386 et 387; XII, 1948-III, 1949, pp. 343-94. Paris, Société Alfred Binet.

Chassagny, Claude. *L'apprentissage de la lecture chez l'enfant. Dyslexiedysgraphie.* Paris, Presses Universitaires de France, 1954, 190 p. (Paideia: Bibliothèque pratique de psychologie et de psychopathologie de l'enfant, dirigée par Georges Heuyer. Quatrième section: Pédagogie pratique.)

Hallgren, Bertil. 'Specific dyslexia' [Congenital word blindness], *Acta psychiatrica et neurologica,* supplementum 65. Copenhagen, Egnar Munksgaard, 1950.

Robinson, Helen M. *Why Pupils Fail in Reading.* Chicago, Ill., The University of Chicago Press, 1946, 257 p.

attention should be given to the pronunciation and meaning of new words, to getting a clear grasp of the meaning, and to interpreting the ideas acquired in terms of the problems with which the class is concerned. If few or no such books are available, the teacher should write on the blackboard (or prepare duplicate copies of) interesting material relating to the problems under discussion, which he secures from a book or prepares himself. This should be written within the reading vocabulary of the pupils, except for the few words needed to present new concepts.

STAGE FOUR: ACQUIRING MORE MATURE READING INTERESTS AND HABITS

As soon as pupils have achieved the aims of Stage Three, they should advance to the more mature reading interests and habits that characterize Stage Four. This is essential in areas where many of the children do not remain in school more than four years. The specific problems will be described briefly under two headings: promoting further growth in and through reading; and introducing pupils gradually to some of the simple adult reading activities of the community.

PROMOTING FURTHER GROWTH IN AND THROUGH READING

A well-conceived reading programme during Stage Four includes several important aspects. The first is carefully planned basic instruction in reading each day for all pupils, the chief aims being:

To stimulate interest in finding out, through reading, about the new and unfamiliar.

To develop skill in recognizing the meaning and pronunciation of the new and difficult words which appear with increasing frequency in the broader range of materials now read. This includes training in the use of a dictionary or its equivalent.

To ensure rapid growth in ability to understand what is read, to react thoughtfully to the ideas acquired, and to use them in enriching previous concepts and ideas, in forming rational attitudes, and in acquiring improved behaviour patterns.

To increase speed of reading.

To improve the quality of oral reading.

To broaden interest in self-initiated reading for pleasure and as an aid in solving personal and group problems, and to enrich one's cultural background.

To provide special help to individuals who face difficulty in reading.

As a rule, a carefully planned series of basic readers is used as an aid in achieving the foregoing aims. The reader for each year builds upon the vocabulary of the previous books in the series and includes some 750 new words, of high frequency, other words essential to the content also being used. Each basic reader includes several types of material: interesting stories and descriptions of the activities and problems of children of this age group; illuminating accounts of people, things and activities in various parts of the world; interesting stories drawn from the fields of adventure, travel, the outdoor world and history; and a good sample of the best literature for children that the country or culture provides.

The general procedures and methods of teaching used are similar to those of Stage Three, but adapted to the more advanced type of work. Each selection read should be introduced in a manner that relates it to the immediate interests of the pupils. Through questions, pictures, discussions, and the sharing of experiences, the interests and experiences of the pupils can be extended and enriched. Provision

should be made for much supplementary reading to satisfy present interests and develop new ones.

The development of increased power and efficiency in reading requires much planning and daily effort. The problems that merit special attention are of four types:

The Development of Greater Ability to Recognize New Words Independently

Because of the wider range of material read during Stage Four, the number of new words mounts rapidly. There is increased skill in recognizing multisyllabic words and in the use of a dictionary for both meanings and pronunciations.

The Enlargement of the Pupils' Meaning Vocabularies

Owing to the nature of the material read, words representing new concepts appear on almost every page, while familiar words are often used to convey new meanings. As a result pupils need continuous training in deriving the meanings of words from the context and from the clues inherent in parts of words. Such training should be supplemented with explanations and with guidance in the use of a dictionary in selecting meanings appropriate to the context.

Promoting Growth in Comprehending and Interpreting Meaning

As pupils are now reading about things and activities that they have never seen, they often need help in grasping and visualizing details accurately. Audio-visual aids of various kinds are increasingly being used, supplemented by explanation and discussion. Pupils should also progress rapidly during Stage Four in ability to secure hidden meanings, draw inferences from what they read and reach conclusions on the basis of the facts presented. As pupils read they should learn to compare ideas secured from other sources and to pass judgment on their value and significance. They should learn to weigh the evidence presented and to distinguish what is true and relevant from what is not. They should also learn to judge the beauty and value of good literature as contrasted with the commonplace and worthless, and gradually acquire a preference for the former.

Speed of Reading

As many pupils fail to acquire the habit of moving along the lines with reasonable speed, steps are often necessary to promote more fluent habits. The most effective means is the wide reading of highly interesting reading material. Some pupils profit, however, from practice exercises in which a limited amount of time is given for completing assigned passages.

Teachers should be on the alert for pupils who are encountering more than the usual amount of difficulty. Observation can be usefully supplemented by the results of reading tests similar to those described for Stage Three. As the pupils who need special help are identified, provision should be made for corrective and remedial training. To a large extent the methods used are those which a good teacher employs daily, but are here concentrated upon special difficulties. Detailed suggestions are given in the references in the footnotes on pages 140-1.

A good reading programme also provides guidance in the reading required in the various school subjects. Much of the material now available is too difficult for pupils to read and understand readily. Before materials are assigned for study teachers

should build up a background of related experiences and explain the meaning of unfamiliar words. Through discussions and teacher-pupil planning, specific questions should be raised or problems identified which as the pupils read, will direct attention to important issues.

Continued effort is essential also in promoting personal reading among pupils for pleasure, to broaden their cultural background, and as an aid in solving personal and group problems. Such habits should be established while pupils are in school if they are to read widely after they leave school. All the methods suggested for promoting interest in reading during Stages Two and Three may be used during Stage Four, and time should be reserved daily in which pupils may read books of their own choice. Wherever possible, the co-operation of the public librarian, if there is one, should be obtained in providing books for pupils' use in school and at home. Books for recreational reading by children are not yet available in many communities, but they are of such importance in achieving the purposes of an adequate reading programme that every effort should be made to provide them as soon as possible.

INTRODUCTION TO ADULT READING ACTIVITIES

At least two steps can be taken to encourage reading activities that approach those of adult members of a community. One is to stimulate interest in current events. If a community has a newspaper a copy of it should appear daily, or weekly, on the reading table; pupils who do not have it at home should be encouraged to read it at school. If no newspaper is published, pupils may be encouraged to report news items to the teacher, who will place those of public interest on a special bulletin board in the classroom. In any case, time should be reserved during some period of the day, such as immediately after lunch, for discussing important events that have happened or will occur soon, and their importance to the community, or to individuals, should be considered at length.

The school should study some of the problems which the community as a whole is facing. A problem may relate, for example, to the need for better sanitary conditions, to improved ways of raising crops or to the building of a new road. The pupils should be encouraged to think about these issues, to bring to school and read any relevant bulletins or folders that have been distributed, and to consider ways in which they may help, individually or as a group, to improve conditions or to solve the specific problems at issue. Through frequent discussions and activities of this type pupils gradually acquire an interest in community problems and a feeling of responsibility to help in solving them.

APPENDIX

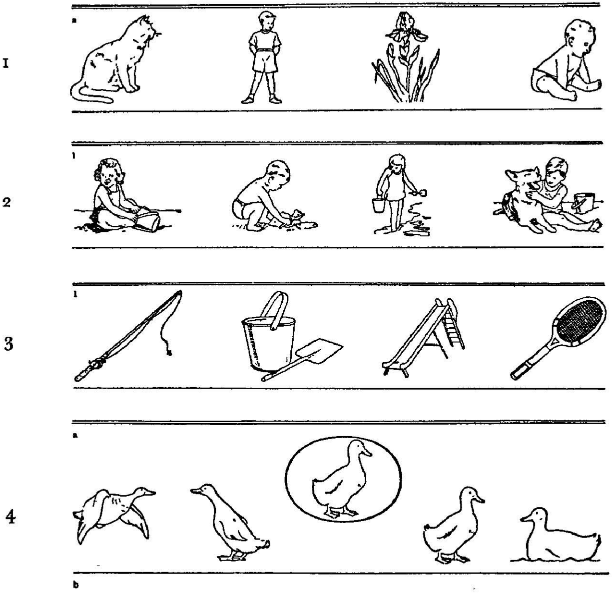


Figure 11. *Metropolitan Reading Readiness Test.*[1]

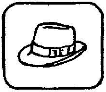
Test 1. Word Meaning. In each of 19 such rows the pupil is to select and mark the picture that illustrates the word the examiner names: For example: 'Mark the baby'.

Test 2. Sentences. In each of 14 such rows the pupil is to select and mark the picture as directed. For example: 'Find the child who is carrying a pail and a shovel'.

Test 3. Information. In each of 14 such rows the pupil is to select and mark the picture that best suits the examiner's description. For example, 'Mark the thing to use when you play outside with a ball'.

Test 4. Matching. This is a test of visual perception. In each of 19 such rows the pupil is to draw a frame around the picture that matches the one in the centre.

1. Published by the World Book Company. Yonkers-on-Hudson, N.Y.

1 
cow bee door hat hole

2
a dog eating   men working
a horse running   a boy running
a boy singing

3 Mary is a little ________
tree cup top girl dress

4 Put an X on the doll.

5 One day it was cold. Jack was glad that his blue coat was so warm.

One day it was
hot rainy cold dark warm

Jack's coat was
cold red glad warm fat

Figure 12. A General Test of Reading Achievement. Examples of types of exercises in *The Chicago Reading Tests*.[1]

Test 1. Comprehension of Words (12 similar tests). The pupil is directed to find the word 'hat' and put a line under it.
Test 2. Comprehension of Phrases (12 tests). Draw a line under the words 'a boy running'.
Test 3. Comprehension of Sentences (8 tests). Draw a line under the word that finishes the sentence best.
Test 4. Comprehension of Directions (7 tests). Read the direction and do what it says.
Test 5. Comprehension of Paragraphs (12 tests). Read the story in the first two lines. Then read each of the sentences that follow and mark the word that finishes it best.

1. Prepared for the Chicago Board of Education. Published by E. M. Hale & Co., Chicago, for use during the first and second year in school.

"Look, Puff," said Sally.
"Look, Spot.
See what you did."

Puff Spot Little Quack

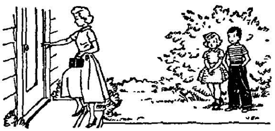
1

2

a baby kitten

a yellow duck

a little chicken



3

She went to get Little Rabbit.
She went to get Sally.
She went to get Grandmother.

Figure 13. Example from a Reading Test accompanying a Primer.[1]

1. Comprehending sentence meaning. The teacher directs the pupils to draw a line under each of the words that tell whom Sally meant by the word *you*.
2. Forming sensory image. The teacher says, 'Think of a fluffy little animal that has wings and swims. Which of these things did you think of? Draw a line under it.'
3. Perceiving relationships. The teacher relates the story background of the picture and then says 'Draw a line under the sentence which tells whom mother was going into the house to get.'

1. New Basic Reading Test to accompany *Fun with Dick and Jane*, Scott Foresman and Company, New Basic Readers, Chicago.

"No, Spot, no!" said Jane.
"You cannot have the doll.
Put that doll down.
I do not want you
to play with it."

4

Father said, "Come, boys.
5 I ___ a surprise for you."

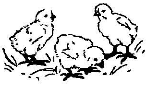
home have here

Father works with a s___

6

7

The children have three ___



chicken
chicken's
chickens

Fig. 13. Example from a Reading Test accompanying a Primer[1] *(cont.)*.

4. Recognizing emotional reactions. 'Read this story. Then draw a line under the face that shows how Jane felt and looked.'
5. Visual scrutiny—meaning. 'Read the two sentences. Draw a line under the word below that belongs in the blank space.'
6. Phonetic analysis. Draw a line under the object the name of which begins with *s* and completes the sentence.
7. Structural analysis—meaning. 'Read the sentence. Which of the three words belongs in the blank space?'

CHAPTER VIII

TEACHING ADULTS TO READ

The task of developing a generation of functionally literate adults is no less challenging than that of promoting desirable reading interests and habits among children. The problem has been studied carefully during recent years in various parts of the world, and, as a result, a body of tested experience and research findings has accumulated which may be used to great advantage as a guide in current efforts to promote world literacy. In this chapter we are concerned particularly with the nature, scope and organization of reading programmes that may be used in teaching adults to read. In writing it, we found the works mentioned in the footnote very valuable.[1]

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1. Agorrilla, Amado L. *Adult Education in the Philippines*. Manila, R. P. Garcia Publishing Company, 1952, pp. 51-89, 162-267.
   Bivar, H. G. S. *Education for All within Six Months: a brochure on adult education with special reference to Bengali*. Calcutta, Rabindra Publishing House, 1949.
   Buswell, Guy Thomas. *How Adults Read*. Chicago, University of Chicago Press, University of Chicago, 1937, 158 p. (*Supplementary Educational Monographs*, No. 45.)
   Department of Mass Education in Indonesia. Issued by the Department of Mass Education, Ministry of Education, Instruction and Culture, Republic of Indonesia.
   Griffin, Ella Washington. *Let's help the Ten Million: teacher's manual*, in: U.S. Office of Education. Project for Literacy Education. *Home and Family Life Series*. New London, Conn. Educator's Washington Dispatch, 1950.
   Gudschinsky, Sarah. *Handbook of Literacy*. Rev. ed. Norman Okla. University of Oklahoma. Summer Institute of Linguistics, 1953.
   Kotinsky, Ruth. *Elementary Education of Adults: a critical interpretation*. New York, American Association for Adult Education, 1941, pp. 54-135. (*Studies in the social significance of adult education in the United States*, No. 26.)
   Laubach, Frank C. *Teaching the World to Read: a handbook for literacy campaigns*. London, United Society for Christian Literature, 1948.
   Puerto Rico, Consejo Superior de Enseñanza. *Educación de adultos (orientaciones y técnicas)*. Río Piedras, Puerto Rico, Universidad de Puerto Rico, 1952. (*Publicaciones pedagógicas*. Serie II, 1952, No. 13.)
   Roberts, D. B. *Types of Organization in Adult and Mass Literacy Works*. Sydney, South Pacific Commission, 1952. 10 p. (*Technical Paper* No. 32).
   Teachers Guide, prepared by Unesco Group Training Scheme for Fundamental Education, Yelwal, Mysore, 1954, 43 p.
   Whipple, Caroline A., Guyton, Mary L., Morris, Elizabeth C. *Manual for Teachers of Adult Elementary Students*. Washington, D.C. United States Office of Education, Department of the Interior, n.d. (Prepared for the American Association for Adult Education.)
   Witty, Paul. 'Principles of Learning derived from the Results of the Army's Programme for Illiterate and non-English-speaking Men.' *Adult Education Bulletin*, No. 11, June 1947, pp. 131-6. Department of Adult Education, National Education Association, Washington, D.C.

CURRENT STATUS OF READING PROGRAMMES

In a surprisingly large number of regions of the world there is little or no literacy training. In such cases, effort to extend literacy must start from the beginning, often without public support, with few (if any) trained teachers and with little or no instructional material.

The programmes in existence vary widely in both scope and organization. At one extreme are those in which the instruction given is limited to the use of a primer and ends as soon as 'minimum literacy standards' are attained. Restricted programmes of this type have often been adopted because of lack of funds, trained teachers, and adequate instructional materials. In many cases, however, they have been approved in the belief that if adults once acquire the skills of word recognition they can become efficient readers through their own efforts—although in fact experience has shown repeatedly that this hope is not realized in the case of a large proportion of adults who receive limited training.

At a somewhat more advanced level are programmes which make use of more extended basic reading materials. For example, the Ministry of Education in Brazil[1] published in 1948 a two-booklet series, one of which was called *Ler*, meaning to read, and the other *Saber*, meaning to learn. Even longer series were prepared for use in the 1950 literacy campaign in the Sudan[2] and for general use in Puerto Rico[3] and elsewhere. The use of such series usually carries the student while still in class to a much higher level of achievement than was attained through the use of traditional primers only.

A still broader type of programme provides not only extended basic reading materials but also 'follow-up material', that is simple materials to be read independently by the student as soon as, or even before, the basic materials are completed. They are prepared by literature committees,[4] educational agencies, religious organizations and publishing houses. Their content covers practically all subjects of adult interest. If simple enough to be read with ease and pleasure, they develop increased skill and promote interest in personal reading.

As literacy programmes have expanded, some communities have found it advisable to divide them into a series of periods or stages, each of which aims at certain clearly defined goals. Such a programme was proposed by Bivar[5] in 1949 for use in Bengali. Another was used in the recent Community Development Project in rural areas of India.[6] It included four stages. Stage one consisted of the informal mastery by students of literacy charts posted in convenient centres in the village; stage two, the reading of a primer; stage three, the guided reading of a second book with a vocabulary of 520 words; and stage four, the more or less independent reading of materials relating to farming and various problems of daily living. A recently developed programme at Mysore, India,[7] is also divided into four stages. Pro-

1. Brazil. Ministerio de Educação e Saude. Departamento Nacional de Educação. *Ler: primeiro guia de leitura*. Rio de Janeiro, 1948.
2. Yusif, Hassan Ahmed. *Organization of Adult Literacy Campaigns in 1950*. Bakht er Ruda, Ed Dueim, Sudan, 1950.
3. Puerto Rico. Consejo Superior de Enseñanza. *Libros de lectura*. San Juan, Depto. de Instrucción Publica, 1953. Titles published in this series include: *A la escuela. Las trabajadores. A cuidar la salud. El Ciudadano en una democracia. A divertirnos sanamente.*
4. Read, Margaret. 'Some Aspect of Adult Education.' *Community Development Bulletin*, Vol. VIII, No. 4, December 1952, pp. 62-82.
5. Bivar, H. G. S. *Education for All within Six Months*. op. cit.
6. Chatterji, U. N. 'Literacy training becomes a part of rural development', *Indian Farming*, Vol. II. No. 4, July 1952, pp. 28-9.
7. *Teachers Guide*, op. cit.

grammes[1] divided into three stages have been recommended for use in Spanish-speaking America.

Paralleling these and other developments, varied types of programmes have been organized to meet specific conditions and needs in given communities. In the Philippines,[2] for example, the chief aim of recent literacy training is to promote a high level of competence in reading as an aid in the study of personal and social problems, to enrich readers' experiences, broaden their cultural background, provide pleasure and stimulate thought. Following a series of primer lessons, several types of reading materials are used: a *Citizen's Reader* including 35 stories based on social and economic problems; a book entitled *In Our Community*, emphasizing the practical ideals and virtues of a good citizen; and *Citizens Letters* which are published weekly and which present material of immediate interest to adults. Assuming that the guidance provided is effective the result is a rapid development of reading interests and skills, a growing understanding of personal and community problems, and a cultural background making for fuller living and constructive community service. Such results are highly desirable and merit vigorous effort everywhere to attain them.

There is a world-wide need for training that will ensure functional literacy on the part of all adults. It should be based on sound principles of learning and adjusted to the specific local needs and conditions. Efforts to improve existing programmes should begin at their present level of development and introduce changes only as rapidly as local conditions justify.

Obviously it will not be possible in this chapter to outline reading programmes adjusted to the needs of every community. It seems advisable rather to describe in some detail features which have wide application and which are supported by the results of tested experience and research. We recognize that many of the proposals made cannot be adopted at once in certain communities for reasons such as lack of funds, poorly trained teachers and inappropriate instructional materials. It is hoped, however, that they will serve as helpful guides in all communities which are engaged in long-term efforts to develop programmes of the scope and efficiency that current life demands. Many of the steps involved in adjusting reading programmes to specific conditions and needs in given communities will be discussed in Chapter XII.

CHIEF AIMS OF ADULT READING PROGRAMMES

Of primary importance in organizing or improving an adult reading programme is a clear statement of aims and purposes. As shown in Chapter I, the broad objective toward which current reading programmes should be directed is functional literacy. This was defined as ability to engage effectively in all those reading activities normally expected of a literate adult in his community. The reading done during the training period should aid also in promoting individual welfare and group progress. In harmony with this view, important aims of teaching reading to adults are presented here in two closely interrelated groups. The first is concerned with the values to be acquired through reading and may be expressed thus:

To meet the practical needs of daily living such as being alerted to danger, finding one's way about, keeping posted on current events, keeping in touch with relatives and friends.

1. Gudschinsky, Sarah. *Handbook of Literacy*, op. cit.
2. Agorrilla, Amado L. *Adult Education in the Philippines*, op. cit.

To improve health, promote good sanitation, improve child care, raise better crops, increase economic status.

To promote a growing understanding of one's physical and social environment, the personal and group problems faced, the issues involved, possible solutions.

To develop an understanding of local traditions, institutions and prevailing practices.

To cultivate the attitudes and ideals that make for worthy membership of a family, community, nation.

To increase understanding of other places, countries, peoples and times.

To deepen interest on the part of students in their expanding world.

To broaden their cultural background and to enrich life through a growing acquaintance with the group's literary heritage.

To help satisfy religious aspirations through the reading of sacred literature.

To get enjoyment and pleasure out of reading.

These are merely suggestions: the needs and values that merit most emphasis vary among communities and cultures. It follows that, if its citizens are to engage effectively in the activities and thought of the broader culture of which they are a part, each community must make a detailed study of the local needs to be met and the values to be attained through reading.

The second group of aims is concerned with the reading attitudes and skills essential in attaining functional literacy and in securing the various values sought through reading. The list that follows is based on the results of research concerning essential reading attitudes and skills, as summarized in Chapters III to V. It has also been checked carefully with current statements of aims secured from various parts of the world.

To develop a 'compelling' interest in learning to read.

To cultivate a thoughtful reading attitude, or a demand for meaning, in all reading activities.

To develop accuracy and independence in word recognition.

To promote ability to secure a clear grasp of the meaning of what is read, including literal, related and implied meanings, as discussed in Chapter IV.

To cultivate the habit of reacting thoughtfully to what is read.

To develop ability to make use of the ideas acquired in clarifying one's understanding, in acquiring rational attitudes, and in solving personal and group problems.

To increase the speed of reading with clear grasp of meaning.

To promote reasonably good oral reading on the part of all, but to strive for superior quality only on the part of those who are keenly interested and show capacity to profit from the training given.

To broaden interest in reading and to cultivate a growing preference for good reading material.

To establish the habit of reading regularly for pleasure and information.

The task of promoting functional literacy as now conceived is a far broader one than that of merely arousing enthusiasm for literacy status and the provision of training limited to the use of a literacy chart and a primer. The time required to achieve the broader goals sought will vary among communities but it may be assumed that from 150 to 300 hours of carefully planned teaching will be needed.

ORGANIZATION OF THE PROGRAMME

As pointed out above, one important trend during recent years has been to divide reading programmes into a series of units, or stages, each of which seeks to promote definite progress toward functional literacy. A practical advantage of this plan is that many adults who hesitate to register at the outset for a long period of training will often register for the first stage, which aims at reaching simple reading activities in a relatively short period of time. As they make progress toward this goal, keen interest in further training can often be developed.

Research shows that individuals pass through similar stages of development as they make progress toward maturity in reading. For example, they first acquire the basic attitudes and skills involved in reading very simple passages. They then make rapid progress in learning to read, and interpret any material within the range of familiar experience that is expressed in the vocabulary of everyday usage. Finally they acquire ability to read and interpret effectively more mature types of material needed in meeting personal and group needs.

As reading programmes developed which were based on the foregoing considerations, it was discovered that many illiterate adults are not well prepared to learn to read readily at the time they enter literacy classes. The nature of their deficiencies will be discussed later. The point here is that a preparatory stage is essential for many adults, during which training can be provided that will ensure more rapid progress in early efforts to learn to read.

A review of the evidence available led to the decision to organize the programme outlined in this chapter into four stages: Stage One, preparing for reading; Stage Two, establishing initial reading attitudes and skills; Stage Three, growing rapidly in ability to read; Stage Four, acquiring greater maturity in reading.

The nature and scope of the training needed during each stage will now be described. Many communities find it desirable to grant certificates on the completion of each stage, beginning with Stage Two. This practice not only provides incentives for individual effort but stimulates community-wide interest in attaining higher levels of literacy.

STAGE ONE: PREPARING FOR READING

The nature and scope of the activities needed during Stage One are determined by two aims: to study the readiness of young people and adults to learn to read, and to help remove handicaps and promote increased readiness on the part of all who need such help. These steps should be parallel in time and closely integrated with the preparatory stage in learning to write, as described in Chapter XI.

NEED FOR PREPARATORY STEPS

Young people and adults who enrol for literacy training differ widely in their rate of progress. Many of the explanations[1] for such differences relate to variations among individuals within groups in such characteristics as ability to learn, background of experience, command of language, condition of health, ability to see and hear, and

1. Griffin, Ella Washington, op. cit., pp. 19-22.
   Gudschinsky, Sarah, op. cit., Chapter IV.
   Puerto Rico, Consejo Superior de Enseñanza, op. cit.
   Wall, W. D. 'Reading Backwardness among Men in the Army'. *British Journal of Educational Psychology*, Vol. XV, Feb. 1945, pp. 28-40, and Vol. XVI, Nov. 1946, pp. 133-48.

so on. Others relate to factors that often affect some communities more largely than others. A few examples follow.

In a recent report, Agorrilla[1] states that many adults in the Philippines have lived for years without recognizing any loss that may have resulted from inability to read. They will have to be persuaded of its value before they become willing to establish the habit. Again, the Filipino has learned to work for pay. He has not discovered that reading may provide a different kind of reward or compensation that justifies the effort required in learning to read. One of the steps essential during the preparatory stage is to provide convincing evidence to adults that reading may provide satisfaction and rewards.

Reports from other areas state that many illiterates look upon ability to read as a superior achievement and lack confidence in their own ability to acquire the art. They either do not join literacy classes or are so timid that they make little progress after they enrol. The fact has been demonstrated repeatedly that once confidence has been established many of these adults make very satisfactory progress.

In some remote communities little or no use has as yet been made of written or printed symbols. As a result young people and adults are not familiar with signs, printed notices, newspapers, or other printed materials. They have not yet learned that language can be expressed in symbols. Obviously such groups are far less well prepared to learn to read than those living in communities where printed symbols appear everywhere and in which many people read regularly in carrying on their daily activities.

Intensive studies[2] on this point justify two important conclusions: first that many personal, social and environmental factors directly affect readiness to learn to read; and second, that when appropriate steps are taken to remove handicaps and to provide the necessary preparatory training many adults who had previously failed to learn to read are able to make rapid progress.

FACTORS THAT INFLUENCE READINESS TO LEARN TO READ

The foregoing findings emphasize the need of a clear understanding of the factors that influence progress in learning to read. Both experience in teaching and the results of research indicate that to a greater or less extent, each of the following factors are involved.

Sufficient mental ability to learn to translate the printed word into meanings. As pointed out in Chapter VII, most children who have attained a mental age of six or more, and are otherwise prepared for reading, are able to learn to read fairly well. Because of the greater age and wider experience of most young people and adults who enter literacy classes they are usually much more mature mentally than children—although there are striking exceptions. Furthermore, experienced workers with native groups find that some who are innately more capable than children seem to have lost their capacity to learn because of fixed habits. It

1. Agorrilla, Amada L., op. cit., pp. 229-30.
2. Chenault, Price, ed. *Diagnostic and Remedial Teaching in Correctional Institutions*. Albany, New York, State of New York, Department of Correction, 1945.
   Goldberg, Samuel. *Army Training of Illiterates in World War II*. New York City, Bureau of Publications, Teachers College, Columbia University, 1951, Chap. VI. (*Contributions to Education*, No. 966.)
   Griffin, Ella Washington. *Let's Help the Ten Million: teacher's manual*, op. cit., Chap. V.
   Wall, W. D. 'Reading Backwardness among Men in the Army: I and II', pp. 28-40. *British Journal of Educational Psychology*, Vol. XV, Feb. 1945, Vol. XVI, Nov. 1946, pp. 133-48.

follows that careful studies need to be made to ascertain the probable learning capacity of those who enrol for literacy training.

A 'compelling' interest in learning to read.

A clear recognition of the fact that printed or written words represent meanings.

A reasonably wide range of information, and familiarity with the things and activities that will be referred to in early reading lessons.

A wide speaking vocabulary and command of more mature forms of expression than those used in early reading activities; also ability to speak with sufficient accuracy and clarity to be easily understood.

Ability to think clearly and to make use of what the reader knows in grasping meanings, seeing relationships, making choices and solving simple problems.

Ability to hold attention to the task at hand, to listen and look carefully, and to distinguish the important and relevant in what is seen and heard.

Ability to discriminate between different sounds and forms well enough to be able to distinguish one word from another.

Ability to interpret pictures well enough to use any that appear in assigned reading materials as aids in understanding what is read and in recognizing words.

Ability to work with others, to follow direction, and to adjust oneself readily to various learning situations.

Freedom from disease, worries and emotional tensions that distract attention and effort from the learning task at hand.

Although all of the foregoing requisites for learning to read have been found to apply more or less universally, each community should review them in the light of their respective needs and make changes or additions that seem desirable.

DETERMINING READINESS FOR READING

Various steps may be taken in determining the readiness of young people and adults to learn to read. The first is a carefully planned community study before literacy classes are organized, seeking answers to such questions as the following: What is the current role of reading in the community? What other purposes might it serve? What reading materials are available to satisfy current needs and interests? What proportion of the young people and adults read? To what extent are those who are illiterate keenly interested in learning to read? The answers to such questions reveal the nature of the problems to be faced in promoting readiness to learn to read and in raising the literacy level of a community.

A second step involves personal interviews by the teacher with prospective students. In preparation for these he should take part in the survey suggested above. An alternative plan is for him to make a personal study of the community, to become acquainted with its people and to know 'their activities, their characteristics, and the general pattern of their lives'.[1] As a rule, the personal interview with prospective students occurs later, at the teaching centre.

A special effort should be made by the teacher to establish cordial relations with each student. He should try also to learn as much as he can about the motive of the student in enrolling for literacy training, his eagerness to learn to read, his hesitancy and fears, if any, and his apparent maturity, background of experience and other attainments referred to in the preceding list of requisites for learning to read.

The third purpose of the interview is to secure such items of information as the

1. *Teachers's Guide*, op. cit., pp. 4-5.

student's name, address, approximate age. Many communities provide a record card on which entries can be made. A list of the items on one such form follows:

LITERACY SURVEY FORM [1]

Name .... Village ....
Age .... Date ....
Occupation .... Conducted by ....

Whether literate, semi-literate or illiterate

Previous schooling .... Years .... Months ....
Age when he/she went to school ....
What kind of materials he/she would like to read ....
Does he/she want to become literate ....
Reasons ....
How much time can he/she devote to literacy ....
Whether member of any society ....
Positions in the community ....
Position in the family ....
Whether married or unmarried ....
Any special interest or hobby ....
Any other important information ....

The form used should be adjusted to the needs of the community. Space should be reserved also for items of information relating to readiness to learn to write, as suggested in Chapter XI. Much of the information can be entered on the form as it is obtained informally during the interview. Many teachers have also found it advisable to make a record on a supplementary sheet of important comments and responses made by the student; if this disturbs the student the teacher should try to keep such items to mind and summarize them after the interview is over. In some communities a mental test[2] and simple visual and hearing tests are given at the close of the interview by qualified local specialists. The information thus secured can be summarized to advantage on a Reading Readiness Chart similar to the one on page 126. In the light of the tentative findings the teacher can plan with reasonable confidence the nature of the work for the opening classes.

INCREASING THE READINESS OF ADULTS FOR READING

The experiences and the training that further increase readiness for reading are provided in different ways. They are discussed here under two headings:

Through Community Effort

Many different methods are used by communities to stimulate adults to want to learn to read. A method much used formerly was to organize a spectacular drive to secure enrolment in literacy classes. Wide use was made of posters, parades, public meetings, personal interviews. The value of reading and the ability of recent illiterates to read were demonstrated. When enthusiasm reached its height, enrol-

1. *Teacher's Guide*, op. cit., p. 37.
2. See list of reading tests for adults in the appendix to this chapter.

ment for literacy classes began. Though valuable results were obtained through such campaigns, many who enrolled soon dropped out of class—probably because enrolment occurred more as a result of group enthusiasm than because of personal interest in learning to read.

In areas where reading is little used, constructive effort may begin by putting up signs such as 'danger' and calling attention to their meaning. A bulletin board may be erected in a public place on which brief but important news items are posted. Adults who are literate may gather round the bulletin board and read and discuss the various items. An effort is made to stimulate those who cannot read to participate in the discussion. Posters and leaflets relating to topics of wide community interest are also posted on the bulletin board and treated in the same manner as the news items.

An effective method used by workers in fundamental education projects is to create situations in which it becomes apparent that ability to read is an essential aid in solving a problem or in securing a coveted satisfaction or reward. Examples given in Chapter I showed how keen interest in learning to read developed in some areas as soon as people learnt that printed materials could help them to produce better crops, raise chickens or compete successfully in making hats for sale.

Some communities emphasize the pleasure and other advantages of reading. Those who cannot read are invited to meet to listen to the reading of stories, descriptions, sacred literature. At times the reading is interrupted and the group is encouraged to discuss what has been read to them. As a result of several such meetings those who are unable to read get a vivid impression of the pleasures and satisfactions they might enjoy if they could.

Thus various methods are used in increasing the desire to read. They will vary with a community's cultural status, its contact with other cultural groups, the role that reading already plays in the community, the desires and aspirations of individuals. The more that is done before classwork begins to broaden understanding and to intensify the desire to learn to read, the greater the likelihood of rapid progress from the beginning and the ultimate attainment of functional literacy.

Through Teacher Effort

A teacher should begin where the community leaves off. He should have clearly in mind the attainments and needs of individual students as revealed through his interviews with them. He should know the nature of the understanding, and the interests and attitudes, that have been developed through community effort.

The first two class meetings are often used, in part at least, to induce greater readiness on the part of all. Students are encouraged to discuss why they want to learn to read. The values they seek are discussed in relation to their home life, work, community needs and personal development. As this discussion goes forward, the teacher raises questions and offers suggestions which encourage the more timid to express their views and stimulate all to express their ideas clearly. One good result of such discussions is a clearer understanding on the part of teachers of the varying capacities, attainments and needs of different members of the group.

It is also advisable to introduce a few simple reading activities during the first class meeting, so as to satisfy the keen desire on the part of students to *start* to learn to read; to emphasize the fact that the chief purpose of reading is to secure meaning; and to help convince the less confident that they are able to learn to read. To achieve these purposes a few signs can be used to advantage, such as 'Danger', 'Stop', 'Go', 'Keep off the grass', and names of streets or buildings.

This part of the class period may begin with a discussion of the reasons for

traffic directions, warning signs, names on buildings, etc. After their importance has been considered the teacher asks the class if they know of any signs or notices that appear about the community. As examples are given the teacher writes them on the blackboard in script, which is the style recommended in Chapter XI for use in learning to write. Following the writing of each sign or notice the teacher reads it, has different students read it, and then has the class as a whole read it. If more than four or five signs and notices are mentioned the group may select a few of the shorter and most important ones to learn. Practice in reading these signs continues until the students can recognize them readily. In pointing to each in turn the teacher asks: 'What does this sign say?' He leads the students to recognize that printed signs and notices give us directions, warn us of danger, or tell us where we are. Interest is also awakened in discovering before the next class meeting any additional signs in the community and what each says.

These examples illustrate only a few of the steps which a teacher may take in preparing adults to learn to read. According to Rodriguez Bou,[1] the chief purposes to be achieved are to expand the oral vocabulary of students, increase their ability to express themselves freely and clearly, broaden or clarify concepts, establish the fact that words convey meanings, develop a small sight vocabulary, and stimulate increased interest in learning to read. (Added suggestions may be secured from the references in the footnotes.)[2] In the past, little time has been devoted to such activities, but experience shows that progress is more rapid in the end if a few class periods are devoted to the stimulation of greater readiness for reading on the part of less well-developed students. If for any reason it is inadvisable to delay formal instruction in reading, some time should be reserved daily during the early part of Stage Two for promoting increased readiness to learn.

STAGE TWO: ESTABLISHING INITIAL READING ATTITUDES AND SKILLS

Stage Two begins as soon as it is clear that students are prepared to learn to read with reasonable ease. The chief goal sought is ability to read simple material with attention focused on meaning, such as signs, notices, brief news items and letters, and simple directions. The attainment of this goal enables students to meet the minimum literacy standards of the past. It also represents an important mile-post on the way to functional literacy.

SPECIFIC AIMS AND DURATION OF STAGE TWO

The aims of this stage are substantially the same for all countries and languages:

To deepen interest in learning to read.

To promote increased readiness for reading.

To cultivate a thoughtful reading attitude and a demand for meaning in all reading activities.

To develop a sight vocabulary of carefully selected words of high value in meeting the simplest reading needs of adults.

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1. Puerto Rico. Consejo Superior de Enseñanza, *Manual para la enseñanza de lectura y escritura a adultos analfabetos*, op. cit., pp. 12-15.
   Whipple, Guyton, Morris, op. cit., pp. 39-40.
2. Gudschinsky, Sarah. *Handbook of Literacy*, op. cit., pp. 9-14.

To develop skill in recognizing new or unfamiliar words accurately (the difficulty of the process varies as between different languages).
To promote a clear grasp of the meaning of what is read.
To cultivate the habit of reacting thoughtfully to what is read and of applying the ideas acquired in meeting personal or group needs.
To stimulate interest in reading for pleasure and information.
To stimulate a desire to acquire ability to read beyond the level attained at the end of Stage Two.

The amount of time needed to achieve these aims varies widely among communities and cultures. In general, some 24 to 40 class periods of an hour each are required. Training should continue until students are able to engage in continuous and understanding reading of very simple material and have begun to use reading in meeting at least a few of the practical needs of daily living.

THE GROUPING OF STUDENTS

In many communities it is necessary to provide most of the literacy training at times and places convenient to individuals. But group instruction has many advantages during the pre-primer period. It brings students together in a social situation and relates the efforts of each to the needs and aspirations of the group as a whole. Those who have not yet acquired a 'burning desire' to learn to read are influenced by the enthusiasm of others. Those who learn slowly profit from the insights and responses of those who learn rapidly. Moreover, because essential directions and explanations can be given to many at the same time, group teaching is more economical. Classes are best limited to not more than twenty. If a larger number enrols at any given time students should be classified into groups on the basis of their probable ability to progress, as revealed by the evidence secured during Stage One.

If group instruction is used classes should meet, if possible, in attractive rooms equipped with comfortable desks, a teacher's table, a blackboard, bulletin board and reading table or shelves. The teacher should place signs about his room which are used widely in the community, hang interesting pictures or posters on the wall with brief titles written below them, write 'good evening' on the bulletin board and place pictures, a few simple books, and a newspaper on the reading table. As the students assemble, he will talk informally about these items and try in various ways to arouse interest in them and a desire to find out what the words 'say'.

APPROACHES TO READING BEFORE PRIMERS ARE USED

The nature of the initial steps taken in teaching adults to read merit special study.[1] They determine to a large extent a student's attitude toward reading, his willingness to apply himself whole-heartedly to assigned tasks, and his progress in learning to read. In an effort to vitalize early reading activities, in practically all parts of the world some teachers postpone for a time the use of primers. During this period they base the instruction given on materials that relate directly to the immediate interests and experiences of the group taught. This plan is adopted in the belief that such materials will arouse keener interest and stimulate greater effort among students than those in most primers. They have the added advantage that they can be used also in promoting increased readiness for reading wherever such steps are necessary.

1. Gudschinsky, Sarah. *Handbook of Literacy*, op. cit., pp. 26-50.

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Use of Signs, Familiar Sayings, Songs

Some teachers make use of words and short statements which have already acquired vital meaning in the daily lives of students. In some communities, for example, use is made for a few days of signs. Because of the increasing role that signs and posters are now playing in many communities their use in adult classes arouses interest at once. They are prepared on cardboard in script writing or written on the blackboard and shown time after time until recognized at sight. As soon as a sign consisting of two or more words is known as a whole, individual words are identified and learned. Some or all of the words learned are then broken down into their elements and used in building other words already in the oral vocabulary of the students. Through discussions about the value of each sign, teachers can further a growing understanding of community need and practices and an inquiring attitude toward the meaning of any word seen. By stimulating interest in learning what all the signs in the community say most students acquire a small sight vocabulary rapidly. Such an approach is soon supplemented, however, by the use of other types of material.

In parts of South America, Africa, India and other regions where printed signs are not widely used, brief sayings or proverbs which are familiar to all are often used in early reading activities. They are first learned as wholes. Individual words are then identified and later broken down into their elements. These are used in turn in composing new words and in recognizing unfamiliar words. Experience shows that the use of such material helps in cultivating a thoughtful reading attitude and, if carefully chosen, in developing a sight vocabulary of very useful words. One of the difficulties inherent in this method is that students do not distinguish one word from another readily when several new ones are presented at once in a sentence. This difficulty can be avoided by introducing new words slowly, not more than one or two in a sentence. These new words should be used orally and written upon the blackboard separately before the written or printed proverb or saying is presented, so that their identity will be known.

For initial reading lessons teachers, particularly in missions, often use familiar songs[1] which include a great deal of repetition. The books containing a song, or duplicated copies of it, are placed in the hands of the students. As they sing the song they study the words until they can distinguish one from another and recognize each word at sight. In a short time some of the words which contain important phonetic elements are broken down into their parts. These are combined in turn into other familiar words and used in recognizing new words in other songs and printed material.

Wide use has also been made of so-called literacy charts[2] which introduce words through the use of pictures. The word is pronounced and then broken down into its elements. The chief aim is to familiarize the students with the sounds of the various letters in the language before the use of the primer is begun. The Method of the Normal Words[3] has also been used for the same purpose. Both plans have been criticized on the ground that they concentrate so exclusively on sound elements that the meaning aspects of reading are neglected. This criticism can be largely overcome by introducing each word in a picture or verbal setting that attaches a vivid meaning

1. Holding, Mary. 'Adult Literacy Experiment in Kenya.' *Overseas Education*, XVI, Oct. 1945, pp. 204-8.
2. Laubach, Frank C. *The Each One Teach One Method: 1950 supplement to Teaching the World to Read*. New York. Committee on World Literacy and World Literature, 156 Fifth Avenue, 20 p.
3. Designed by Karl Vogel (*Des Kindes erstes Schulbuch*. Leipzig, 1843) this method has been widely used in Latin America. It was introduced in Mexico at the beginning of this century by the Swiss educator Heinrich Rebsamen, as reported by Alfredo Basurto García in his *La lectura*, op. cit., p. 93.

to it, and by providing much reading of sentences that include them as soon as the words are recognized at sight.

Filmstrip

The use of these has increased rapidly during the last decade. They can be used in presenting any of the types of material we have referred to. Wide use was made of them, by various countries during World War II, in providing literacy training for men in the armed forces. They proved very effective in presenting the sight and speaking vocabularies which the men needed in camp. 'One filmstrip,[1] *The Story of Private Pete*, introduced the most frequently used nouns, while another, *Introduction to Language*, was employed to present verbs and propositions.'

Each frame in the filmstrip consisted of a picture below which there was a brief caption. As each picture was presented the thing or activity illustrated was discussed and in some cases demonstrated. The soldiers thus developed vivid associations with the words in the caption. The training developed a sight vocabulary which enabled the men to attack the lessons in *The Army Reader* with success and confidence. Because of the distinct success which has accompanied their use, filmstrip will doubtless play an increasingly wide role in literacy training in the future.

Experience Charts

The materials which are probably used most often in pre-primer activities take the form of so-called experience charts or records. These are prepared through the combined effort of teachers and students. An example from an adult literacy programme developed in Puerto Rico[2] appears on page 90 of Chapter V. A brief description of the methods followed in developing the materials and in teaching students to read through their use accompanies the example. Vigorous effort is made to develop both a thoughtful reading attitude and a sight vocabulary of some fifty words, before a primer is introduced. Some of the words taught are also broken down into their phonetic elements and combined into new words.

Experience charts vary considerably. In areas where a fundamental education programme is in process they are often based on some vital or urgent problem affecting the community. Let us assume, for example, that a community is in urgent need of pure water. Following a discussion of the fact that a member of the community is sick because he drank impure water, the following sentences may be written on the blackboard:

Water

Mr. Brown is sick.
He drank water from our well.
The water is not good to drink.
We need pure water.

As these sentences are written upon the blackboard and read, vivid meanings are associated with the various words used and as a result they are learnt quickly. The use of such lessons also prepares adults within a reasonable time to read simple

1. Witty, op. cit., p. 132. For detailed information concerning the content of this filmstrip and the methods used in presenting it see *Illustrated Instructors Reference*: to be used in conjunction with FS 12-5 *The Story of Private Pete*, 15 June 1943. Washington, D.C., United States Government Printing Office, 1943, 58 p.
2. Puerto Rico, Consejo Superior de Enseñanza. *Manual para la enseñanza de lectura y escritura a adultos analfabetos*. Río Piedras, Universidad de Puerto Rico, 1953, 39 p.

material relating to the group problem. This approach is therefore favoured by many who are working in communities on fundamental education projects. Care must be observed, however, not to introduce new words too rapidly or to neglect the words of greatest value in general reading activities.

In order to use experience charts effectively teachers should make a careful study of the techniques used in preparing them. The outline that follows describes very briefly some of the steps that have proved effective in preparing and in using them.

At the beginning of a class period, the teacher focuses attention on some question, activity or event of immediate interest to all, such as: 'What do we do at school?' This question is then written on the blackboard.

Through the use of questions and comments members of the class are encouraged to suggest answers. After several answers have been given the students choose those which, in their judgment, are the most important. They are expressed in very simple form and written below the questions:

What we do in school?
We read
We write
We spell
We sing

The teacher reads the first line. The class as a whole reads it. It is then read separately by several members of the class. The other lines are read similarly.

The teacher then asks members of the class to find specific lines in response to such questions as: 'Which line says "We read"?'

After the various lines have been identified the teacher gives the following directions in turn: Find the word 'we', 'read', 'sing', 'spell', 'write'.

As each word is identified it is written on the blackboard. Soon all five words appear in a column. The teacher then asks the students to identify the words as he points to them and to find them in the sentences on the blackboard.

On the following day the lesson is reviewed briefly. It is helpful to prepare cards in advance on which the new words have been printed separately in block type, or written in script large enough for the class to see them easily. They are presented one after another as an aid in helping the class to recognize them quickly at sight.

A new lesson is then developed which builds on the vocabulary of the first day by adding a new word. For example:

We can read.
We can write.
We can spell.
We can sing.

The various sentences and words are then identified by the methods used on the first day. As soon as the students can recognize all the words the teacher may ask: 'What do we learn in school?' As the students respond the teacher writes the following sentences on the blackboard which are studied in the usual manner.

We learn to read.
We learn to write.
We learn to spell.

The teacher writes a new sentence on the blackboard made up of the words already known. For example: 'We can learn to read.' The students read the sentence as a

whole, identify the separate words in it, and find them in the sentences already written on the blackboard.

The students then make other sentences out of the words they know. Possible examples follow:

We can learn to write.
We can learn to spell.
We can learn to sing.

The phrase 'in school' may now be added to any of the sentences that have already been used. Thus the scope of the vocabulary grows steadily. Not more than two or three words should be added at a time, slow learning groups may learn only two or three words during a class period; rapid learning groups may learn five or more. At each step in this procedure the teacher should ask the students to identify individual words wherever they appear on the blackboard. This helps them in learning to distinguish one word from another and thus prepares them for the analysis of words into their elements.

In this way teachers can develop reading materials for class use[1] that are based on the immediate interests of the adults taught. Two of the problems faced in doing so are to introduce new words slowly and to provide much repetition of each word, in various sentences, to ensure mastery. As pointed out in Chapter VII, experience charts have both advantages and limitations. Even though they are not used as basic materials in early reading instruction, all teachers of adults should be familiar with the techniques involved in preparing them; records of the activities and thinking of the students can then be used almost daily as valuable supplements to the basic programme followed.

Methods and Goals

A careful survey of the various types of pre-primer programmes now in use shows that with few exceptions they make use of the global concept of teaching. Each word and sentence read, no matter what kind of characters is used in writing a language, is presented in a context that is familiar and significant to the learner. As a result the basic attitudes and skills involved in reading for meaning develop rapidly, and the details of written or printed words—that is the form and sounds of letters and the various markings that indicate appropriate sounds, stress or tone—are learned in a functional setting. Their knowledge thus acquired can be applied intelligently in reading new material.

Students who have acquired the attitudes and skills described above approach a primer or reader quite differently from those who have not had such training. They are familiar with the fact that written and printed words represent ideas. They recognize at sight most of the words used in the early part of the primer. Since they have acquired an interest in the *meaning* of what is read they begin to read their first book with the attitude of an efficient reader. Hence they advance far more rapidly than those whose initial instruction in reading is based on the use of a primer. Otherwise the problems faced in achieving the goals of Stage Two are much the same and will be considered in the section that follows.

1. For additional information concerning types of experience charts and steps involved in making them, see references in the footnotes in Chapter VII, pp. 131-2.

THE PRIMER APPROACH TO READING

Primers, or their equivalent, are used far more widely today than any other type of material in teaching adults to read. They are greatly preferred where teachers have had little or no training—untrained teachers being unable to provide an effective sequence of early reading activities without a well-prepared primer as a guide. In the discussion that follows attention is directed to some of the problems involved in teaching adults to read through the use of primers.

Grouping of Students

Group and individual teaching, are both widely used. Their relative merits have been well summarized in an unpublished report by Dr. K. Neijs,[1] Literacy Adviser of the South Pacific Commission. With respect to group instruction he points out that it has certain socio-psychological advantages in many areas. In Melanesia, for example, adults like to meet and organize for any purpose. Group organization serves, therefore, as a natural and effective approach to learning activities. Group instruction is also economical and provides mutual stimulation among students and opportunities for building up a common cultural background.

On the other hand, it is often difficult to provide group instruction at times and places convenient for all students; since adults differ widely in their rate of learning those who learn slowly cannot keep up with the class and those who learn rapidly are unduly held back; it is difficult to adjust the teaching to the needs of all. To meet the situation, in many countries an effort is made to organize groups more or less similar in ability and needs, to supplement group instruction with individual help, and to transfer individuals from one group to another where their needs can be met better.

Individual instruction has the advantage that it can be fitted readily into the working schedules of adults. In Israel, for example, it has been necessary for this reason to make wide use of it.

Individual instruction does not, however, provide the stimulation and help from other students inherent in group teaching, while it is often difficult to find enough literate adults to serve as teachers. Effort, therefore, is made in many areas to secure highly literate adults as teachers and if possible to train them in advance. This type of individual instruction should not be confused with the each-one-teach-one plan, as generally used; the latter plan has succeeded in some communities and failed in others. Many adults resent being taught by those who can read little better than themselves, and such teachers are unable to provide help beyond the most elementary steps in learning to read.

Thus both group and individual instruction have advantages and limitations. For the reasons given above, the plan which works best in one community may not be adapted to the needs of another. It follows that a careful study should be made of the attitudes, needs, and resources of given communities, and decisions reached accordingly. Of primary importance in any plan adopted is the need for teachers themselves functionally literate and familiar with the problems involved in teaching adults to read and the best methods for effective progress. Problems in developing a trained staff of teachers are discussed in Chapter XII.

1. Neijs, Dr. K. 'The class method versus the "Each one teach one method".' Unpublished report on file in the Education Clearing House, Unesco, Paris, France.

The Instructional Materials Needed

As a rule, the only materials used in the past in teaching adults to read were those included in a primer. These were wholly inadequate to ensure satisfactory progress. To overcome these limitations the following types of materials are today being used more and more widely.

1. A carefully prepared primer or, preferably, series of primers or booklets, each about fifty pages in length and including a total of 150 pages more or less, for use in achieving the aims of Stage Two. The content of those booklets should relate to the immediate activities, interests or felt needs of the group taught. This enlists the whole-hearted co-operation of students and means quicker progress. Obviously groups differ in the types of content that makes the strongest appeal. The problems thus created are discussed in Chapter XII.

   The materials are organized to include vital content from the beginning. Pictures are used freely in introducing words and ideas in a meaningful setting. Very soon, however, the verbal text consists of a sequence of ideas that stimulates keen interest in finding out what the words say. The new words introduced in the early lessons are recognized first as wholes and thereafter used in reading for meaning. In order to promote growth in word-attack skills, key words that have been learned as wholes are broken down into their syllabic or phonetic elements. These are used in subsequent lessons in the recognition of new words containing the same elements. Similar principles are followed in learning to interpret any marks that accompany printed words to indicate variations in letter sound, in stress, or in tone.

   The vocabulary introduced during Stage Two is limited to about 250 of the most frequently used words in the everyday language of adults, plus such additional words as may be needed in presenting vital content. The material is carefully graded, the average number of new words per page being about two. Each new word is repeated 15 or more times as soon as possible after it is introduced, and a total of 50 or more times during Stage Two. Additional details concerning the nature of effective basic reading materials are described in the references in the footnotes[1] and will be discussed more fully in Chapter XII.
2. One or more work books to provide added practice on specific aspects of reading; for example, the ability to recognize specific words at sight, to discriminate between word forms, to analyse words into their elements, to associate meanings with words, to find answers to questions, and to master unique features of printed words, such as those indicating variations in sounds of letters, in stress and in tone. The specific exercises for a given day are closely related to the materials read in the primer. Figure 14 at the end of this chapter presents examples of types of exercises included in one work book.
3. Word and phrase cards which aid in promoting the rapid mastery of new words and in checking the progress of individuals. Some publishers provide printed sets to accompany their primers. When not available in this way teachers often prepare sets by writing the new words introduced from day to day in script on strips of cardboard. Some teachers encourage students to make sets of their own as soon as they have made sufficient progress in learning to write.

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1. Gudschinsky, Sarah. *Handbook of Literacy*, op. cit.
   Griffin, Ella. 'Writing Graded Textbooks for Literacy Training', *Fudamental and Adult Education*, Vol. VI, No. 3, July 1954, pp. 102-8.
   Rodriguez Bou, Ismael. *Suggestions for the Preparation of Reading Material*. Paris, Unesco, 1949. (*Occasional papers in education*, No. 2.)

4. Word games.[1] One which has proved valuable is called 'Word Lotto'. Pieces of cardboard, 6 × 8 inches, are divided into 25 squares and the words to be learned written in them, the arrangements of the words being different on each card. As the teacher calls a given word the students look at their cards carefully to identify it and to place a small piece of paper on it. The first student who covers all words in a designated row is the winner. Such a device not only arouses interest but stimulates visual discrimination and effective memory of word forms.
5. Supplementary reading materials[2] that include material of high interest value and are limited in vocabulary to the words already learned in the primer. Additional details on such materials are given in Chapter XII. They are read independently by students and the results checked in class. They are being used more and more widely during Stage Two because of their value in developing word mastery, habits of fluent reading, and the habit of reading for meaning.

   Many other types of material[3] are used, such as filmstrips, that present words and phrases, 'literacy charts' that aid in mastering word elements, films that present content on which reading lessons are based, pictures, posters, cartoons, maps, diagrams, and actual objects. In her *Handbook of Literacy*, Sarah Gudschinsky[4] describes various types of practice exercises which she has found valuable in her work in Latin America. The fact is recognized that very few literacy classes can secure all of the types of material suggested above. It is hoped, however, that the description given may prove helpful as a guide to local groups in selecting or preparing materials adapted to their specific needs.

Procedures in Teaching

Assuming that appropriate reading materials are available, what general procedures should be adopted in teaching a lesson? Good teachers find it advisable to divide a lesson into three parts. Sometimes all three occur during the same class period and at other times they may be distributed over two or three periods. The suggestions that follow relate not only to classes whose initial training in reading is based on a primer but also to those who receive some training before a primer is used.

Preparatory steps. Before asking students to read a primer lesson, teachers try to awaken interest in its content, to develop backround for understanding what is read, and to introduce in meaningful settings the new words that will appear in the lesson. As such words are used in the discussion the teacher writes them on the blackboard, so that students become acquainted with their form as well as their meaning. He may also write known words on the blackboard and direct the students' attention to similarities and differences. If the students are already familiar with any of the phonetic or syllabic elements included, they identify and use them as aids in recognizing new words. Various devices are used to arouse an attitude of expectancy concerning the content of the lesson through a discussion of the title, by studying the pictures, and by raising problems that can be answered through reading.

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1. Townsend, Elaine Mielke. 'The Construction and Use of Readers for Aymara Indians,' *Fundamental and Adult Education*, Vol. IV, No. 4, 1952, p. 24.
2. *Teachers Guide*, op. cit., p. 1.
3. Witty, Paul A. and Goldberg, Samuel. 'The Use of Visual Aids in Special Training Units in the Army,' *Journal of Educational Psychology*, XXXV, February 1944, pp. 82-90.
4. Gudschinsky, Sarah. *Handbook of Literacy*, op. cit.

Reading the lessons. As soon as the students are well prepared and eager to read, the second stage begins. Its chief aim is to help them get a clear grasp of the meaning of what is read. By means of carefully selected questions the teacher stimulates thoughtful reading of one sentence after another. As each question is asked the students read the appropriate part silently to find out what it says. They are helped in doing so by their knowledge of words learned previously, by their brief acquaintance with the new words placed on the blackboard during the preparatory stage, and by their knowledge of any word elements that have already been learned.

As soon as a sentence has been silently studied, a student may be asked to tell what it says and another to read it orally. After the lesson has been read in this manner it may be re-read silently to find answers to other questions asked by either the students or the teacher. At first the questions asked should be such that they can be answered in terms of specific words or sentences in the lesson; later the questions may call for answers that can be best expressed in the student's own words. Before the class period is over, selected parts or all of the lesson may be read orally. Throughout the entire period the teacher should note carefully any errors or difficulties that may require specific attention later.

Supplementary practice. The third step in the lesson aims first at providing help on specific difficulties met in reading it. At times, the teacher may concentrate on a difficulty felt by all members of a class; or he may focus attention on individual needs. In the former case, he may write two words upon the blackboard that were confused by the students as they read, and ask them to point out significant differences in their form or in the known elements which they contain. In the latter case, he may ask all the students to re-read the lesson with an assigned problem in mind. While they are reading, he passes from one student to another, providing in each case the kind of help most needed.

A second purpose of the supplementary practice period is to develop new understanding and skills needed in developing added power in reading. Some of the techniques that may be used are discussed in the section that follows. In addition the teacher supervises the students as they do assigned work book exercises, discusses their understanding of previously assigned supplementary reading and gives tests that measure the progress of the students.

Developing Word-attack Skills

In view of the difficulties, the problem of developing independence in recognizing words deserves careful study. Many primers include exercises which aim at familiarizing students with word elements and at developing skill in using them in recognizing new words. This practice is illustrated in Figure 15, which reproduces three pages of a Spanish Primer.[1] Page 2 presents a picture and a sentence which serve as the reading lesson for the day. Page 3 shows that the word *Arado* is composed of the vowel *a* and two syllables, *ra* and *do*. Page 4 combines these elements into six words. If the primers or work books used in a class do not include such exercises teachers should provide similar types of training during the supplementary practice period.

The problem of developing word recognition skills is a relatively simple one in languages in which the words are highly phonetic and spelt regularly. It is far greater in languages which are more or less non-phonetic. In such cases the teacher directs attention from the beginning to similarities and differences in word form and

1. *Mi tierra. Silabario para adultos.* Santiago de Chile, Ministerio de Educación, 1949, pp. 2-4.

sound and to distinguishing features of words. As soon as students learn that a given word such as *ran*, begins with the sound *r* they are asked to name other words that begin in the same way. In this manner the form and sounds of various letters are learned.

As the consonant sounds are learned, they may be used as aids in identifying new words which are similar in all but one consonant. For example if the new word to be recognized is *can*, the students will quickly recognize that it is similar in all respects but one to the known word *ran*. If they have learned the sound of *c* they substitute it for the sound *r* in the word *ran* and thus derive *can*. By the end of Stage Two the students should know the sounds of most of the letters and be able to use them, with the additional help of the context, in recognizing new words. They should also have made definite progress in recognizing the structural elements of words, such as endings (*s*, *ed*, *ing*) prefixes and suffixes, and in using them as aids in deriving the pronunciation of new words. As a result of the systematic training given, students should progress rapidly in their capacity to use various aids[1] to word recognition, namely, meaning, word forms, structural analysis and phonetic analysis.

The basic principles underlying the foregoing procedures apply also to the stages involved in learning other essential facts about printed words. For example, vowels are not presented in some languages, such as Arabic. Instead, various marks are placed near consonants, or some modification made in their form, to indicate the vowel sounds that go with them in pronouncing specific words. Again, different marks are used in some languages to indicate variations in stress and tone. These and other unique features of a written language should be used first in a normal reading situation. Their functions should then be identified and the knowledge thus acquired used in recognizing other words and reading other sentences. No method of teaching is adequate which neglects these aspects or uses procedures which are not psychologically sound.

With only slight modifications the same methods are used in developing independence in the recognition of word concept characters and syllabic sound characters. After a small sight vocabulary of Chinese or Japanese words has been acquired, some of the known words are expressed in phonetic symbols. The various phonetic elements are then learned, as in any highly phonetic language, and are applied in identifying other words written in phonetic symbols. As an aid to the reader, the words thus written are printed next to the same words written in Chinese or Japanese.

Different languages present unique problems which must be solved in teaching adults to read. It lies far beyond the scope of this chapter to discuss the form and structure of various languages, the nature of the word elements involved, and other distinctive features. For detailed discussions of such matters, authors of primers, teachers, and literacy specialists are referred to the general references in the footnotes[2] and to those listed in Chapter III. In addition they should read the best analyses available of the characteristics of their respective languages.

Promoting Growth in Other Aspects of Reading

In order to achieve the aims of Stage Two there are many other aspects requiring emphasis. It will be possible to discuss only two of them here. Adults should learn

1. Gray, William S. *On Their Own in Reading*. Chicago, Scott Foresman and Company, 1948.
2. Pike, Kenneth L. *Phonemics, a Technique for Reducing Languages to Writing*. Ann Arbor, Michigan, University of Michigan Press, 1947.
   Nida, Eugene. *Morphology, the Descriptive Analysis of Words*. 2nd ed. Ann Arbor, Michigan, University of Michigan Press, 1949.

early to read with reasonable speed. This involves the quick and accurate recognition of words, often in units of two or more words. To this end various types of practice are provided. For example, word and phrase cards are exposed briefly; sentences containing no new words are written on the blackboard and erased quickly; a limited amount of time is allowed in which to read a page to find an answer to a question. Such devices help towards quick recognition and an increasingly wide span of recognition.

Wide use is made today of simple supplementary reading materials limited to words already introduced in the primer. Such materials are needed because the basic primers or booklets used do not provide sufficient practice in reading to develop fluent reading habits. Their use provides opportunities for students to do much reading with attention focused on meaning. After their use begins, teachers assign one or more selections to be read at home, between classes.

Secondly, since many students do not go beyond Stage Two every effort should be made while they are in class to stimulate interest in independent reading and establish the habit of regular reading for pleasure and information. The use of supplementary readers, as described above, is of great value in this connexion. Teachers should keep on the reading table any very simple, interesting material they can secure, and direct attention during classes to items of special interest to individuals or to the group as a whole. Portions of them are read to the class from time to time to stimulate interest. Those who do independent reading are encouraged to make brief reports of it to the class. News items are also discussed regularly and students urged to read news bulletins or newspapers. In these and other ways continuous effort is made to awaken interest in private reading.

Measuring Progress and Providing Special Help as Needed

Efficient teachers note daily the difficulties of individual students and help them accordingly. They give tests[1] from time to time to secure objective evidence of their progress and needs. Brief descriptions follow of tests that seek to do four things:

How well do students recognize at sight the words already presented in the primer? For this purpose select 30 words and arrange them in 10 horizontal lines with three in a line. Then direct the students as follows: Put a line under the word .... in the first line; under the word .... in the second line; etc. The number marked correctly by the different students indicates their comparative efficiency—and needs—in word mastery.

How well do students understand the meaning of what is read? Prepare a short passage limited to the vocabulary already read in class and followed by two or more questions expressed in known words. Each question should be followed by three suggested answers, only one of which is right. The students should read the test passages and check the right answers to each question. No time-limit should be set. A study of the responses of the students will show their progress in comprehension.

How well can students recognize new words composed of known word elements? The teacher selects a group of new words and places them on the blackboard one at a time. After allowing a brief time for study, he asks how many know the new word. By noting the students who do not raise their hands, and by checking

1. Very few reading tests for near-literates have been published, as revealed by the list in the appendix. As a result those who give literacy training either use tests prepared for young children or develop tests of their own. The need for adult reading tests in various languages is urgent.

the responses of those who do, the teacher can find out readily who are making satisfactory progress and who are not.

How rapidly do the students read? The teacher selects or prepares a passage consisting of known words. The students are asked to read it to find the answer to a question that can be given only after reading the entire passage. They are directed to raise their hands as soon as they have read the passage once. By noting the order in which the students raise their hands the teacher will gain useful information concerning their rate of reading.

Such tests should be very simple at first and increase in scope as the students advance. Tests of other aspects of reading can also be used. As the weaknesses and needs of students are ascertained special help should be provided. Sometimes most of the students need the same kind of help, and in such cases it can be given during regular class periods. At other times the class can be divided into small groups and each given help according to his needs.

Recognizing the Attainment of the Goals of Stage Two

Through the use of observations and tests teachers can determine with fair accuracy when students have completed the aims of Stage Two, as outlined on page 158.

As soon as a group of students have made satisfactory progress they should be granted a certificate indicating the extent of their progress toward functional literacy; at the same time, vigorous efforts should be made to induce them to register for additional training. Those who have not completed Stage Two should continue to receive training at that level.

STAGE THREE: GROWING RAPIDLY IN ABILITY TO READ

Stage Three builds upon the basic reading attitudes and skills acquired during Stage Two and seeks to prepare adults to read with ease and understanding any material within the range of their everyday vocabulary.

SPECIFIC AIMS AND DURATION OF STAGE THREE

The specific aims of the training given during this stage are:

To deepen interest in becoming an efficient reader.

To extend the sight vocabulary in reading to include most of the words commonly used in personal correspondence, news items, notices and simple bulletins, and books written for popular use. The size of the essential sight vocabulary varies from 1,500 to 2,500 for different languages. It should be large enough for the number of new words usually met in reading the types of material listed above to be not more than one in ten.

To provide all the training needed in word-attack skills to enable adults to recognize independently any word in their oral vocabulary.

To develop increased breadth and depth of understanding in reading, including ability to recognize literal, related and implied meanings, to react thoughtfully to the ideas thus acquired, and to recognize their value and use in solving personal and group problems.

To promote skill in reading various kinds of materials and in reading for different purposes.

To increase the speed of silent reading distinctly above that of oral reading.

To improve the quality of oral reading on the part of those who encounter no serious difficulty in oral expression.

To increase interest in personal reading.

The time required to achieve the foregoing aims varies with such factors as the size of the sight vocabulary to be mastered, structure of the language, availability of appropriate reading materials, efficiency of teachers, the vigour with which students apply themselves to the activities assigned, etc. Estimates from field workers vary from 72 to 150 hours of class work devoted exclusively to reading, plus related outside study.

IDENTIFYING THE ATTAINMENTS AND NEEDS OF STUDENTS

Many types of students enrol for training at the beginning of Stage Three, including not only those having recently completed Stage Two but also those who went to school as children or had some literacy training elsewhere and now wish to learn to read better. The training needed can be given either individually or in groups. In either case, it should begin as nearly as possible at the present level of reading ability of each student. If group instruction is used each class should include not more than 20 students more or less similar in reading attainments and needs. As a rule the group training provided should be supplemented by a good deal of individual help, adapted to the specific needs of students.

As an aid in ascertaining the attainments and needs of the students some form of reading placement test is advisable. For example, the authors of the *Home and Family Life Series*[1] developed such a test including four measures of reading ability. An example of each type is shown in Figure 16. Since such tests are not always available, brief descriptions follow of informal tests that can be given to advantage during the first class meeting. For this purpose all students should meet at the same time and place and then be divided at random into groups of about 20 each. A teacher and an assistant should be assigned to each group to conduct the tests.

A word recognition test. Prepare a test composed of 15 rows of words with three words in a row. The first row should include three words from the earliest part of the basic reading material used during Stage Two. The words for the next 11 rows should be selected at equal intervals throughout the remaining material used during that stage. The last three rows should include words which will be taught early during Stage Three. As soon as the lists have been distributed tell the students that you will pronounce one of the words in the first row and they are to identify it if they can, and put a line under it. Have the assistant check the first response of these students to find out if they understand what they are to do. Then pronounce a word in each of the remaining rows. The students' score is the number of words underlined correctly. A study of the words missed is usually very revealing.

Rate and comprehension. Prepare a story or description containing 100, 150, or 200 words each of which was taught during Stage Two. It should be multigraphed so that each student may have a copy. On a separate sheet prepare a list of five questions each of which is followed by three statements, only one of which is the right answer. Before handing out the story to be read give the following directions: 'We are going to place on your desk a story to be read silently. Later we will give you

1. 'Reading Placement', *Home and Family Life Series*. Project for Literacy Education under the sponsorship of the Federal Security Agency, Office of Education, U.S.A. Washington, D.C. Washington Educators Dispatch.

a sheet containing questions to be answered about the story. When I tell you to do so you will pick up the sheet on your desk and read the story once from beginning to end. Keep in mind what you read so that you will be able to answer questions about it. When you have finished reading the story raise your hand. The assistant will then hand you the second sheet, which contains several questions each of which is followed by three statements. You are to read the questions and underline the right answers.'

Write a similar exercise on the blackboard and show how it should be done.

As soon as the directions are clearly understood, the assistant should distribute the sheets containing the story, reminding the students not to pick it up, or to look at it, until told to do so. When the sheets are all distributed, say to the group: 'You may pick up the sheet so that you can begin reading when I tell you to. Look at me now. When I tell you to do so you will read the story from beginning to end just once, keeping in mind what it says. As soon as you reach the end raise your hand. When the assistant gives you the second sheet read the questions and underline the right answer in each case. Are you ready? Begin to read.' Prepare in advance a plot of the group and record on it the order—1, 2, 3, etc.—in which the students finish reading. Keep a record of the number of seconds required by the fastest and by the slowest reader to finish the reading of the story. The number of questions answered correctly is the students' comprehension score. It is advisable for the assistant to pick up the first sheet when he hands out the questions so that the students cannot refer to it while answering.

Oral reading test. It is helpful also to give an informal oral reading test. For this purpose select two or three stories that are similar in difficulty to the material that will be used at the beginning of Stage Three. After talking about the title have each of the students read a few lines in turn. If time permits, ask each student to read twice. As he reads, the assistant should make a record of the number and kinds of errors made. It may be advisable to ask those who do least well to read additional passages later, so that a more careful study can be made of their errors and needs.

On the basis of the information thus obtained the students may, at the second class meeting, be organized into classes. They may be told that the tests revealed wide differences among them in ability to read and that each is being assigned to the group where he can be given the kind of help he needs. As each teacher continues to work with his group, he should study carefully the responses of each student, and will often find that transfers from one group to another are desirable. If a student objects seriously to a change, only moderate pressure should be exerted until he discovers that he is getting behind and that the proposed change would be to his advantage.

BASIC READING INSTRUCTION

The purpose of the basic instruction given during Stage Three is to develop through carefully planned lessons the various understanding and skills needed to ensure rapid progress. A minimum of 250 pages of carefully graded reading material is essential, introducing 700 new words of high frequency in reading materials for adults; they should be so chosen so as to include most if not all types of word difficulties that will be met during Stage Three. Each word should be repeated a minimum of 20 times—preferably 50 times. The material should relate to things, events or activities that really interest adults. It should be divided into units of about six pages each. Each book should be accompanied by a work-book providing needed practice on word-recognition, and comprehension skills.

The practice of dividing each lesson into three parts, as described on page 166, may be continued to advantage. During the preparatory stage the new words that are likely to cause difficulty may be written on the blackboard as they are used in presenting a background for a thoughtful reading of the story. Just before beginning to read these words should be reviewed. If the students are familiar with all the elements included in a given word they should be asked to identify and use them in recognizing it. Other words may be compared with known words that are more or less similar in form, and any distinguishing features pointed out.

While reading the selection attention should be focused primarily on the *meaning* of what is read. Through the use of carefully selected questions the teacher may guide the silent reading of paragraphs or longer passages. The discussion that follows the reading of each passage should focus attention on the story, events or facts presented. The students may also be stimulated to recall previous experiences that help to make clear the meaning of what was read. As soon as the lesson has been read once in this manner it may be re-read to find answers to other more penetrating questions. Some of them may require the students to search for implied meanings, to recognize conclusions that are justified by the facts presented, or to use the ideas acquired in trying to solve a personal or group problem. Finally, parts or all of the lesson may be read aloud. The oftener the material is re-read, always with a new problem or purpose in mind, the quicker the progress in mastering essential reading skills. Throughout the reading at the lesson the teacher should be on the alert to identify the kinds of difficulties the students encounter and the types of help needed.

The first purpose of the supplementary practice or drill period is to give help in overcoming specific difficulties. This may call for a more careful study of certain passages in the book or for explanations, demonstrations, or the doing of exercises written upon the blackboard. A second purpose is to develop new understandings and skills as they are needed from day to day. The specific problems that merit emphasis will vary, of course, for different languages; they may relate to word recognition, grasp of meaning, or unique features of the particular written language. Finally, directions for doing the work-book exercises should be given. They may be done at home and the responses checked with the group during the next class period.

SUPPLEMENTARY READING

Wide reading of supplementary material is essential in achieving the aims of Stage Three. It not only deepens interest in reading but makes for rapid progress in acquiring the attitudes and skills involved in fluent thoughtful reading. Best results are secured when the supplementary materials are specially prepared to accompany the basic readers. In this case they should relate to topics of common interest to all adults in the area served. From 500 to 1,000 new words should be included, which the students can pronounce through the use of the word recognition skills developed in class. Not more than four and preferably only three new words should be met on a page. If such books are not available, material meeting as far as possible the above requirements should be selected.

Time should be reserved near the close of a lesson to set the supplementary reading to be done before the next class meeting. Teachers should list on the blackboard the new words that may cause difficulty and provide whatever help is needed in recognizing them. The students should be advised to read a selection silently three or four times until they can read it easily without hesitation, and then to read it aloud to members of their family or friends. As they do so the value and implica-

tions of the ideas are discussed at length. When carried on in this way supplementary reading may aid not only in promoting rapid progress in students but in demonstrating to others the value of reading and in arousing interest among them in learning to read.

As students read the assigned selections they should make a record of any problems which they could not solve themselves. During the next class meeting, time should be reserved to discuss the content of what was read and to provide any help needed. It is also advisable to have the selection read aloud at times as a check on the progress of individuals.

THE STUDY OF SPECIAL PROBLEMS

Groups in specific areas may acquire interest in one or more problems not discussed in either the basal or supplementary materials used. As soon as such interests develop, an effort should be made to obtain relevant material that the students can read with reasonable ease and to provide needed guidance in reading and interpreting it.

The amount of such material that is available varies widely in different parts of the world. Fortunately, its need has been recognized widely. Many useful leaflets and small booklets have been prepared during recent years by such agencies as the Literature Bureaux[1] in Africa, the Pan American Union for Spanish-speaking people, agricultural, religious and educational organizations, and private publishing houses. If a search for relevant material fails to discover any that can be used, one should try to produce it locally. The need for training teachers to prepare simple material based on the immediate problems of specific groups is so urgent that courses in the preparation of reading material are now being offered in several countries, notably India and the United States of America.

Time should be reserved in the literacy programme for the study of urgent personal and group problems. The nature of the problem and the kind of information needed in solving it should be discussed by the group. As a rule special help is needed in recognizing new and technical words. Of special importance is the need of help in ensuring a clear understanding of the ideas presented and in recognizing their value and application to the solution of the problem in question. Often new concepts are presented which need explanation and clarification. The directed reading of each short passage should be followed by a full discussion. The chief aim of the teacher is to help the group clarify its thinking and reach sound conclusions.

PERSONAL READING

During Stage Three the development of interest in personal reading is important. This involves first of all the arousing of keen interest in current events and the development of the habit of reading a newspaper regularly. Many teachers secure enough copies of a newspaper for class use and give guidance in finding and reading different parts of it. Opportunity is also given for students to report in class news items which they have read at home or elsewhere.

Important also is the stimulation of interest in reading books for pleasure and information. Teachers make every effort possible, therefore, to get hold of interesting books that are within the reading vocabulary of the students. They direct the

1. See: Unesco. *Education Abstracts*, Vol. VI, No. 2. 'Literature Bureaux and Production Centres'. Paris, 1954.

students' attention to any new material on the reading table, discuss briefly their content, and read aloud interesting passages. Frequently opportunity is also given for students to make a brief report on what they have read and to explain why others might find a given book interesting. Of special value are meetings, open to the public, at which students dramatize a story or read interesting passages to the audience. Such programmes not only provide strong incentives for effort on the part of students but awaken interest throughout a community in reading as a source of pleasure, inspiration and practical help.

DIAGNOSIS AND RETEACHING

Throughout Stage Three continuous effort should be made to ascertain the nature of the difficulties that block progress on the part of students. Good teachers not only observe the errors and difficulties during class activities but give frequent tests, such as those described earlier, so as to get fuller information concerning the attainments and needs of their students. In the case of every student who is not making satisfactory progress, a record is kept on a separate sheet of examples of the kinds of errors made and difficulties encountered.

As information accumulates the teacher seeks to ascertain the nature of a student's chief difficulty—word recognition, comprehension, etc. Whatever the nature of the difficulty the next step is to identify its cause—lack of interest, failure to prepare lessons outside of class, inability to see or hear well, poor health, timidity, emotional disturbances, inadequate language development, limited background of experience. A wide range of possible causes of failure in reading have been discussed at length in recent reports.[1]

As soon as the nature and causes of students' difficulties are known corrective steps should be taken. Some perhaps need to be transferred to a different class, another should have his eyes examined, and still others need individual help to overcome their difficulties. This can often be given during regular class periods; in other cases, it may be desirable to provide it after class or during special meetings arranged for the purpose. To a very large extent the methods used are similar to those employed in effective group teaching—while adapted to the specific needs of individuals.

STAGE FOUR: ACQUIRING MORE MATURE READING HABITS

By the time adults have completed Stage Three they should be able to read any material limited to the vocabulary of daily usage. If the materials read do not go beyond this limit, additional training may not be needed in providing for minimum needs. In most areas of the world, however, this is not the case and additional training is essential to ensure functional literacy on the part of all and genuine community leadership on the part of some.

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1. Burt, Sir C., and Lewis, R. B. 'Teaching Backward Readers', *British Journal of Educational Psychology*, XVI, Nov. 1946, pp. 116-32.
   Duncan, John. *Backwardness in Reading.* George G. Harrap and Co., Ltd. 1952, p. 96.
   Schonell, Fred J. 'Causes and Symptoms of Disability in Reading', *Backwardness in the Basic Subjects.* London, Oliver and Boyd, 1948, Chap. IX.
   Wall, W. D. 'Reading Backwardness among Men in the Army', *British Journal of Educational Psychology*, XVI, Nov. 1946, pp. 133-48.

AIMS OF STAGE FOUR

The distinctive aims of the training during this stage are:

To complete the training needed to ensure accuracy and independence in recognizing new and unfamiliar words likely to be met in reading, including the use of a dictionary or similar souce of help if available.

To encourage growth in ability to understand printed materials relating to things and ideas outside the range of familiar experience, for examples: new ways of doing things, descriptions of people and activities in other lands, new practices, procedures and standards, concepts and ideals in one's own and other countries.

To develop increasing capacity to react thoughtfully to what is read, to recognize its value and limitations, and to make use of new ideas in solving personal or group problems, and in modifying, if desirable, one's ideas and behaviour.

To extend one's acquaintance with the various kinds and sources of reading material available—current events, bulletins relating to practical problems of daily living, magazine articles, books of different kinds—the folklore and history of one's own people, descriptions of other peoples, places and times, humour, adventure, poetry, sacred literature.

To cultivate curiosity and an inquiring attitude that leads to reading and to establish the habit of it regularly for pleasure and information.

The amount of time devoted to Stage Four will vary widely among communities and individuals. It is suggested that advanced training be provided for a minimum of 24 class periods during which as much help as possible be given in achieving the foregoing aims. Careful studies should be made of the ability of adults to engage effectively in all the reading activities normally expected of literate adults in the community. Many of the students will attain functional literacy by the end of the course, others will not. Additional training should be provided for the latter.[1]

THE GROUPING OF STUDENTS

All students who have completed Stage Three or made similar progress, but have not attained functional literacy, may be grouped together for training during Stage Four. If there are more than enough for one class they may be classified into groups on the basis of their achievement in reading, as revealed by tests similar to those used at the end of Stage Three. The fact should be kept in mind, however, that the grouping of students reduces the range of ability within a class. It follows that all teachers should continue to study the specific difficulties of each adult and provide for their respective needs.

TYPES OF INSTRUCTIONAL MATERIAL NEEDED

At least three types of instructional material are needed. For the first two or three class meetings a few relatively simple selections, interesting to all, should be read, to develop in the students a feeling of confidence and enthusiasm for the course. Very soon, however, use should be made of various types of material that are normally read by literate adults in the community—newspaper and magazine articles, bulletins, books. They should be slightly more difficult than the materials used in Stage

1. The characteristics and needs of retarded adult readers are discussed at length by Buswell, op. cit., Chenault (editor), op. cit., Goldberg., op. cit., and Wall, op. cit.

Three and introduce the students to the longer, less familiar, and more technical vocabulary normally met at the adult level. It is a good idea to centre the reading around certain issues of interest to the group at the time—group or individual problems, social issues, literary interests, spiritual needs. Several such subjects should be dealt with during the course in order to provide guidance in the reading of different types of matter.

A third type of material is needed that can be read independently and is accompanied by tests that check the reader's comprehension of what he has read. The well known magazine, *Reader's Digest*,[1] has recently prepared two small volumes that illustrate admirably one form that such materials may take. They are called *Adult Education Reader*, Level A and Level B. Each reader contains many selections relating to topics of common interest to adults and each selection is followed by a series of questions to be answered. Examples of such questions are shown in Figure 17. This type of material may be assigned at the close of each class period and the answers recorded by the students should be checked at the next class meeting.

GUIDING THE READING DURING CLASS PERIODS

Carefully planned guidance in reading during class periods is as necessary during Stage Four as during the preceding stages. As the preliminary discussion goes forward, the teacher arouses interest in the materials to be read, recalls related experiences that will aid in interpreting the selection to be read, introduces new words or concepts, and directs attention to the problems or issues to be studied.

The reading of the lesson divides itself into two broad stages. The students first read the selection silently, to secure an over-all grasp of the scenes, events, or answers to assigned questions. At the conclusion of the reading their understanding of the passage should be checked; it is important that they gain a clear understanding of the main statements made before they attempt a more detailed study. Guided by questions and suggestions from the teacher they now re-read to discover any implied meanings, to consider the value or significance of the ideas presented, to see their application to personal or community problems, and to consider how the ideas presented affect previously held views or current ways of thinking or behaving. There should be plenty of discussion during this part of the lesson. Through the sharing of ideas and the pooling of judgments students not only acquire a clearer understanding of the issues but reach more rational conclusions.

As the reading proceeds, the teacher will note the difficulties encountered in recognizing words, grasping meanings, or interpreting the ideas acquired through reading. Time should be reserved before the end of the class to provide any specially needed help. By the end of Stage Four students should have acquired sufficient skill, or be able to use needed sources of help, to meet independently most if not all of the difficulties that they will meet in future reading.

STIMULATING MATURE READING INTERESTS

Every effort should also be made to encourage broader and more mature reading interests. To this end the teacher should secure for classroom use an exhibit of the various kinds of adult reading materials available in the community. In various countries teachers are now being supplied—through educational agencies, literature

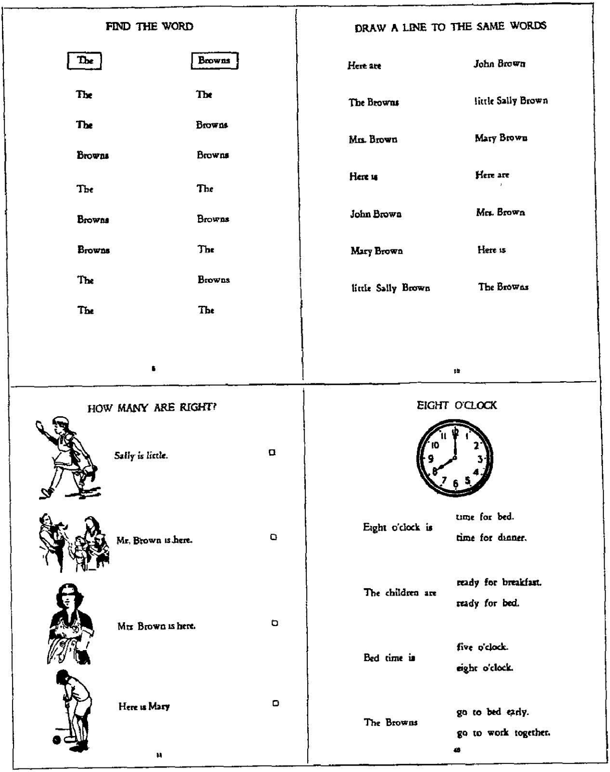
1. The Reader's Digest Educational Service, Inc., Pleasantville, New York.

bureaux, and library organizations[1]—with lists of books classified by topics and according to reading difficulty. Such lists are of great value. Time should be taken during each class meeting to discuss some of the materials on exhibit, to read passages of special interest to the group, and to encourage students to take books home to read. If there is a librarian in the community his help should be sought in acquainting students with books relating to specific topics and in loaning books to them. As during Stage Three, current events should be discussed regularly and the daily reading of newspapers encouraged. In these and other ways teachers work steadily to increase both the amount and quality of the personal reading done by adults. As an aid in this connexion small library centres are today being established in many local areas.

THE GRANTING OF CERTIFICATES

As students show capacity to engage independently in the various types of reading normally expected of literate adults in a community they should be granted a final certificate—their achievement is of sufficient importance to merit distinct social recognition. It is hoped, however, that each community will also provide opportunities for those who receive the certificate to make further progress by enrolling in classes where they may continue to receive guidance in reading in fields of special interest.

1. Wallace, Viola. *Books for Adult Beginners*. Grades I to VI. American Library Association, 1954, p. 66.



FIND THE WORD

The	Browns
The	The
The	Browns
Browns	Browns
The	The
Browns	Browns
Browns	The
The	Browns
The	The

5

DRAW A LINE TO THE SAME WORDS

Here are	John Brown
The Browns	little Sally Brown
Mrs. Brown	Mary Brown
Here is	Here are
John Brown	Mrs. Brown
Mary Brown	Here is
little Sally Brown	The Browns

10

HOW MANY ARE RIGHT?

Sally is little. ☐

Mr. Brown is here. ☐

Mrs Brown is here. ☐

Here is Mary ☐

11

EIGHT O'CLOCK

Eight o'clock is time for bed. / time for dinner.

The children are ready for breakfast. / ready for bed.

Bed time is five o'clock. / eight o'clock.

The Browns go to bed early. / go to work together.

40

Figure 14. Examples of exercise in a work-book to accompany a basic reader. The exercises on page 5 aim to promote visual discrimination of word forms. Those on page 10 require much more detailed visual discrimination. The exercises on page 11 require accurate recognition of words and a clear grasp of meaning. Those on page 40 require visual discrimination, accurate recognition of words and a grasp of meaning.

Workbook in Learning to Read Better. To Accompany Reader One. A Day with the Brown Family. Washington, D.C., Educator's Washington Dispatch, 1950. (*Home and Family Life series.*)

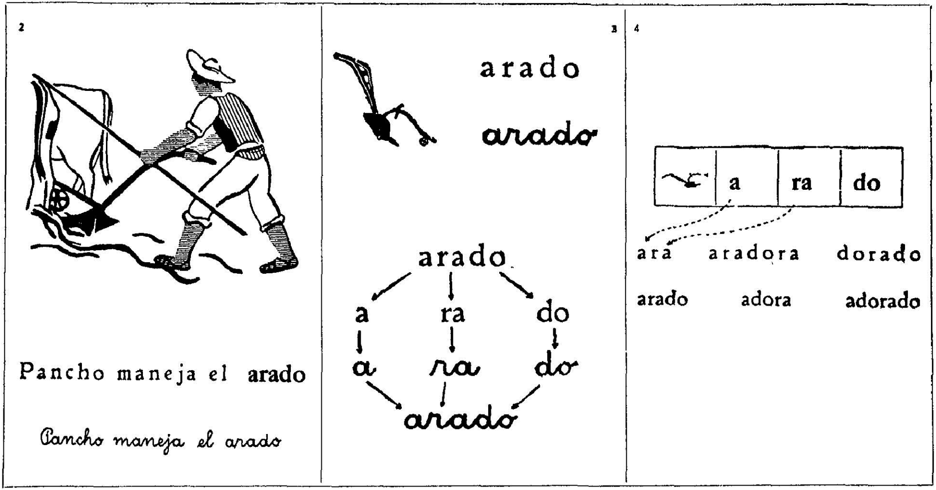
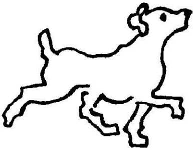


Figure 15. These three pages are reproduced from a Chilean Primer. Page 2 presents the sentence which is the new reading lesson for the day. The picture and verbal texts are read to secure their combined meaning. Page 3 breaks down the new word *arado* into its basic elements—the vowel *a* and the syllables *ra* and *do*. Page 4 combines these three elements into six words.

Mi tierra. Silabario para adultos. Santiago de Chile, Ministerio de Educación, 1949, pp. 2-4.

1 store work money go

2



store

family

dog

dish

egg

3

working on his car

eating his dinner

writing in his book

cleaning the house

washing the clothes

Figure 16. Examples of four types of tests used in measuring the reading attainments and need of students entering literacy classes. Ten such exercises are included in the test. The student's score is the number of exercises completed correctly.

Test 1. Ability to Recognize a Word Pronounced by the Teacher.
Test 2. Ability to Recognize the Word that Tells What the Picture Shows.
Test 3. Ability to Recognize the Phrase that Tells what the Picture Shows.
Test 4. See over page.

Reading Placement. Project for Literacy Education under Sponsorship of the Federal Security Agency, Office of Education. Washington, D.C., Educator's Washington Dispatch, 1949, pp. 1-4. (*Home and Family Life series.*)

4

She is singing in church.

She is buying food.

She is working in the garden.

She is cooking dinner.

She is taking a book to school.

Fig. 16 *(cont.)*. Test 4. Ability to Recognize the Sentence that Tells what the Picture Shows.

18 *THEY MADE A LIVING DIKE*

IV. Right Order, Please!

Number these sentences from 1 to 4 to show what happened in the story.

...... The men brought sandbags to help hold the dike.

...... The dike master and his men made the rounds.

...... Church bells called men from bed.

...... For two hours men held the dike cut.

V. Match Words of Opposite Meaning

Draw a line from each word in List 1 to the word in List 2 that has the opposite meaning.

List 1	*List 2*
enemy	bottom
closed	friend
top	beginning
end	opened

VI. Learn to Read Aloud Well

1. Be ready to read aloud from the story the answer to this question: *Why is the sea an enemy of the Dutch people?* First, read it to yourself to make sure you know the words. As you read aloud, stop only at the stop signs. Speak clearly.
2. Read aloud the sentences you think are most exciting.

Adapted from *They Made a Living Dike*, by Dick Hendrikse
The Reader's Digest, June, '53 (from The Christian Science Monitor)

Figure 17. Examples of the test exercises in an adult reader. Those included follow a story which describes the effort of the Dutch people on the night of 1 February 1953 to save their land from the angry sea.

Map of the World and other Stories. Reader's Digest: Adult Education Reader, Level B. Pleasantville, The Reader's Digest Educational Service, Incorporated, 1954, pp. 17-18.

READING TESTS

READING TESTS FOR CHILDREN

ACER Reading Tests (Forms A or B). Two parallel forms prepared by the Australian Council for Educational Research (age: 10-13 years). Tests are satisfactory for both group and individual use. Five tests with instructions and practice examples: 1. Word knowledge; 2. Speed of reading; 3. Reading for general significance; 4. Reading for note details; 5. Reading for inference. (Reference: Australian Council for Educational Research. *Test Division Catalogue.* Melbourne, 1954, pp. 10-11.) See also: *ACER Reading Test (Form C),* prepared by the Australian Council for Educational Research (for primary grades from grade III in Western Australia, elsewhere from grade IV). Three tests: 1. Word knowledge; 2. Speed of reading; 3. Reading for meaning. (Reference: op. cit., p. 11)

Achievement Tests in Silent Reading: Dominion Tests. Grades 1, 2, 2-3, 3-4, 5-6; 1941-50. Prepared by the Department of Educational Research, Ontario College of Education, University of Toronto, distributed by Vocational Guidance Centre. (Cf. Buros, Oscar Krisen. *The Fourth Mental Measurements Yearbook.* Highland Park, New Jersey, The Gryphon Press, 1953; entry 529, pp. 567-8.)

Barème de Vaney. Devised by V. Vaney to measure individual reading ability. (Cf. Ferré, André. *Les tests à l'école,* 2e éd. Paris, Editions Bourrelier, 1949, pp. 30-2.)

California Reading Tests. Vocabulary and comprehension. Primary (grades I-low IV). Los Angeles, Calif., California Test Bureau.

Compréhension de lecture. By Th. Simon. Contains 1er degré 'avec images', 2e degré 'avec images', 3e degré 'sans images'. Norms given in *Bulletin de la Société Alfred Binet,* Nos. 308-9. (Cf. Ferré, op. cit., pp. 62-65.) (Silent reading.)

Diagnostic Reading Tests. By Fred J. Schonell. Four individual tests (silent reading test A; silent reading test B; simple prose-reading test; graded word-reading test) intended for diagnosis of backwardness in reading. See: (a) Schonell, Fred J. *Backwardness in the Basic Subjects.* Edinburgh, Oliver and Boyd Ltd., 1942. (b) Schonell, Fred J. and Schonell. F. Eleanor. *Diagnostic and Attainment Testing; including a manual of tests, their nature, use, recording and interpreting.* Edinburgh, Oliver and Boyd Ltd., 1950, 168 p. (c) Schonell, Fred J. *The Psychology and Teaching of Reading.* 2nd ed. Edinburgh, London, Oliver and Boyd Ltd., 1946, 128 p.

Durell-Sullivan Reading Capacity and Achievement Tests. Grades 2.5-4.5 and 3-6. New York, World Book Company.

Elementary Reading: Every Pupil Test. Grades 1-3; 1931-36; four scores: form recognition, vocabulary, comprehension, total; Forms 1 (1936), 2 (1936); manual [1936]. Helen Sue Read and May V. Seagoe; California Test Bureau. (Cf. Buros, op. cit., entry 532, p. 577.)

Examen de lectura de Haggerty: Sigma 1. By Saúl M. Mendoza and René Halconruy. Para grados 1-3. Sucre (Bolivia), Escuela Nacional de Maestros, no date. Gives age, grade, and sex norms. (Silent reading.)

Gates Primary Reading Tests. Grades 1-3. Word recognition and paragraph meaning. New York, Teachers College, Columbia University.

Gates Reading Readiness Tests. Grade I; 1939; five scores: picture directions, matching, word-card matching, rhyming, letters and numbers; one form. Arthur I. Gates; Bureau of Publications, Teachers College, Columbia University. (Cf. Buros, op. cit., entry 566, pp. 603-4.)

Graded Word List Test. By Cyril Burt. References to which may be found in: Burt, Cyril. *Mental and Scholastic Tests.* 2nd ed. London, Staples Press Ltd., 1947, 467 p. (Cf. Buros, op. cit., entry B.74, pp. 872-3.) See also: Vernon, Philip E. *The Standardization of a Graded Word Reading Test.* London, University of London Press, 1938-43, 34 p. (Publications of the Scottish Council for Research in Education [no.] 12.) Provides Scottish norms for Burt's *Graded Word Reading Test* and a new scale more suited to Scottish conditions.

Group Test of Reading Readiness: Dominion Tests. Grades kindergarten-1; 1949-51; six scores: discrimination of objects-symbols-words, listening-remembering-observing, familiarity with word forms, motor co-ordination, total; Forms A (1949), B (1949); mimeographed manual (1951); profile chart (1951). Prepared by the Department of Educational Re-

search, Ontario. College of Education, University of Toronto; distributed by Vocational Guidance Centre. (Cf. Buros, op. cit., entry 567, p. 604.)

Individual Reading Test. By Lois W. Allen in co-operation with ACER. Similar to some of Burt's reading tests ($5^1/_2$ to 10 years). Consists of three sections: 1. Word reading; 2. Reading comprehension; 3. Speed of reading. (Cf. Australian Council for Educational Research. *Test Division Catalogue.* Melbourne, 1954, p. 11.)

The Inter-America Tests. Parallel English and Spanish editions, each in two forms. All are arranged for scoring by the International Electrical Test Scoring Machine. Language tests include: Reading, general; Reading in subject-matter fields (vocabulary); and Language usage. (Cf. American Council on Education. *The Teaching of English in Puerto Rico.* San Juan, Puerto Rico, Department of Education Press, 1951, pp. 181-203.)

Leistungsmessung H I 19, Form V. By Erich Hylla and Karlheniz Inserhamp. Pädagogische Arbeitsstelle Wiesbaden, 1948. Contains: subtests 1 (reading); 2 (vocabulary); and 6 (multi-mental vocabulary). (Silent reading.)

Leistungsmessung HK 20. By Erich Hylla and Dietrich Kunze. Pädagogische Arbeitsstelle Wiesbaden, 1950. Contains Test 1 (silent reading) and 2 (vocabulary.)

Metropolitan Achievement Tests: Reading. Grades 3-4, 5-7.5, 5-9.5; a subtest of *Metropolitan Achievements Test;* three scores: reading, vocabulary, total; three levels; directions for administering. Prepared by Richard D. Allen and others; World Book Co. (Cf. Buros, op. cit., entry 543, pp. 582-5.)

Metropolitan Readiness Tests. End of kindergarten and first grade entrants; 1933-50; four scores: reading readiness, number readiness, drawing a man (optional), total; Forms R (1949), S (1950); Form R manual (1950). By Gertrude H. Hildreth and Nellie L. Griffiths; World Book Co. (Cf. Buros, op. cit., entry 570, pp. 604-6.)

The Nelson Denny Reading Tests: Vocabulary and Paragraph; the Clapp-Young Self-Marking Tests Grades 9-16; 1929-38; three scores: vocabulary, paragraph comprehension, total; IBM; Forms A (1929), B (1930); manual (1938). Separate answer booklets or sheets must be used. M. J. Nelson and E. C. Denny; Houghton Mifflin Co. (Cf. Buros, op. cit., entry 544, pp. 585-6.)

New Stanford Reading Test. Word and paragraph meaning. Primary form (grades 2 and 3). Intermediate form (grades 4-6). Yonkers-on-Hudson, N.Y., World Book Company.

Oral Word Reading Test. Prepared and standardized by A. E. Fieldhouse, with *Manual of Directions.* Wellington, New Zealand Council for Educational Research, 1952, 16 p. ('For use only with 7-11's New Zealand children whose mother tongue is English.')

Prueba de lectura silenciosa. Grades 4, 5 & 6. By Alfredo M. Ghioldi and Victor M. A. Belani. Buenos Aires, Editorial Kapelusz & Cía.

Pruebas de instrucción ACV. By Gonzalo Abad, Edmundo Carbo and Ermel Velasco. Quito (Ecuador), Talleres Gráficos Nacionales, no date, 142 p.

Seven Plus Assessment: Northumberland Series. By C. M. Lambert. London, University of London Press [1931]. Three tests: arithmetic, reading, spelling. (Cf. Buros, op. cit., entry 24, pp. 60-1.) Attainment tests.

Silent Reading Comprehension: Iowa Every-Pupil Tests of Basic Skills, Test A. Grades 3-5, 5-9; 1940-47; three scores: reading comprehension, vocabulary, total; IBM for grades 5-9; two levels; Forms L (1940), M (1941), N (1942), O (1943); manual (1945); battery manual (1947). H. F. Spitzer in collaboration with Ernest Horn and others; Houghton Mifflin Co. (Cf. Buros, op. cit., entry 554, p. 592.)

Stanford Achievement Test Reading. Grades 2-3, 4-6, 7-9; 1923-43; a subtest of *Stanford Achievement Test;* three scores; paragraph meaning, word meaning, total; three levels; Forms D (1940), E (1940), G (1942), H (1943); directions for administering (1940). Truman L. Kelley, Giles M. Ruch and Lewis M. Terman; World Book Co. (Cf. Buros, op. cit., entry 555, pp. 592-3.)

Test Boliviano de lectura silenciosa. By René Halconruy (7 rue Dumont-d'Urville, Paris). For grades 3, 4 and 5, with *Manual de instrucciones.* Sucre (Bolivia), Editorial Charcas, 1944, 20 p. With norms for males and females by grades. (Cf. Halconruy, René, 'Création et étalonnage du Test métrique de lecture silencieuse en Bolivie', *Journées internationales de psychologie de l'enfant,* 21-26 avril 1954. Paris, Musée Pédagogique, 1954, p. 79.)

Test de Graduación: Batería II—Forma A. Para los grados 2 y 3. By José M. Gutiérrez and Mer-

cedes González Arias. Contains subtests 1 (lectura-completar), 2 (parrafos) and 3 (vocabulario). (Silent reading.) Habana, Editorial Minerva.

Test de Graduación; Bateria III—Forma A. Para los grados 4, 5 y 6. By José M. Gutiérrez and Rosa Seara Pazos. Contains subtests 1 (lectura) and 2 (vocabulario). Habana, Editorial Minerva. (Silent reading.)

Test de lectura de palabras. Primer grado, Forma A. By José M. Gutiérrez. Habana, Editorial Minerva, no date. (Silent reading test.)

Test de lectura en silencio Tipo A: Lectura para apreciar el significado general. Grados 3-8. By José M. Gutiérrez and María Luisa Pedroso. Habana, Editorial Minerva. (Silent reading.)

Test de lectura Gates-Gutiérrez. Grados 1 y 2. Havana, Editorial Minerva. Tipo 1, reconocimiento de palabras; Tipo 2, lectura de oraciones; Tipo 3, lectura de parrafos.

Test de lectura para la enseñanza primaria superior y secundaria—Forma A. By José M. Gutiérrez. Habana, no date. (Silent reading test.)

Test de lectura segura. By José M. Gutiérrez. Habana, Editorial Minerva, 1941. (Silent reading test.)

Test de lectura silenciosa M. H. Para los cursos 2, 3 y 4. By Saúl M. Mendoza and René Halconruy. Sucre (Bolivia), Escuela Nacional de Maestros [printed by Editorial Charcas], 1942. (Cf. Halconruy, René. 'Tests de lectura silenciosa', *Nuevos Rumbos*, Revista de la Escuela Nacional de Maestros; Septiembre de 1942, pp. 93-152, Sucre, Editorial Charcas.)

Test de lectura silenciosa Tipo B; Lectura para entender instrucciones exactas. Grados 3-6. By M. Gutiérrez and Ignacio Ma. Alfonso. Habana, Editorial Minerva.

Test de lectura silenciosa Tipo C; Lectura para entender instrucciones exactas, Grados 3-6. By José M. Gutiérrez and Esther Porras. Habana, Editorial Minerva. (Silent reading.)

Test de lectura silenciosa Tipo D; Lectura para encontrar detalles. Grados 3-6. By José M. Gutiérrez and Ignacio Ma. Alfonso. Habana, Editorial Minerva.

Test de lecture. Devised by Jean Simon (3 rue Pleyel, Paris) to predict success in reading. (Cf. Simon, Jean. 'Une batterie d'épreuves psychologiques pour la prédiction de la réussite en lecture', *Enfance*, novembre-décembre 1952, pp. 475-80. Paris, Presses Universitaires de France.) Adapted and standardized in Belgium under the direction of M. Hotyat.

Test de lecture silencieuse. By Gladys Lowe Anderson. Norms age 8-16. (Cf. Anderson, Gladys L. *La lecture silencieuse*, préface de Pierre Bovet. Neuchâtel, Paris, Delachaux & Niestlé, S.A., 1929, 159 p. *(Collection d'actualités pédagogiques)*. Also adapted to Spanish and described in *La lectura silenciosa.* Madrid, Espasa-Calpe, S.A., 1934, pp. 120-1. Also adapted in Venezuela by Rosa Padlina as *Test de lectura silenciosa:* Fórmula A, Fórmula B. Caracas, Instituto Pedagógico Nacional, 1936.

Test individuel. Designed by Miss Rémy to measure reading readiness and to group children accordingly. Paris, Société Alfred Binet. (Cf. (a) Ferré, André. *Les tests à l'école.* Paris, Editions Bourrelier, 1950, pp. 26-9 *(Carnets de pédagogie pratique)*; (b) Rémy, Miss. 'Tests rapides de lecture', *Bulletin de la Société Alfred Binet*, Nos. 202-3, pp. 87-9, Paris, 1926.)

Test métrico de lectura silenciosa. Devised by René Halconruy (17 rue Dumont-d'Urville, Paris). With manual. Sucre (Bolivia), 1948. Measures the speed of reading comprehension in 9 to 12-year-old children. Includes two forms: A (with illustrations) and B (without illustrations). Has been widely used in Bolivia and Ecuador. The author has adapted it to French and has published it as *Test métrique de lecture silencieuse,* with manuals. It is being standardized for Belgian children. (Cf. Halconruy, René. 'Création et étalonnage du test métrique de lecture silencieuse en Bolivie', *Journées internationales de psychologie de l'enfant,* 21-26 avril 1954. Paris, Musée Pédagogique, 1954, p. 49.)

Testes ABC para verificação da maturidade necessaria a aprendizagem da leitura e escrita. [By] Manuel B. Lourenço-Filho. 4a. ed. com material para aplicação. São Paulo, Edições Melhoramentos, 1952, 122 p. *(Biblioteca de Educação,* vol. 20). See also the Spanish adaptation translated by José D. Forgione, Buenos Aires, Editorial Kapelusz, 1952. Diagnostic test for reading readiness.

Tests d'instruction Rémy Simon. Paris, Société Alfred Binet, 1941.

Thorndike-Lorge Reading Test. Grades 7-9; 1941-47; Forms A. Rev. (1947). E. L. Thorndike and Irving Lorge; Bureau of Publications, Teachers College, Columbia University. (Cf. Buros, op. cit., entry 558, pp. 596-7.)

READING TESTS FOR ADULTS

Adult Reading Test. Forms 1 and 2. Institute of Educational Research, Teachers College, Columbia University.

Watts-Vernon Silent Reading Test. This test was calibrated with pre-war tests and an approximate set of pre-war norms was reached for the new tests by the method of equivalent percentages. (It has not been published, but it is controlled in: (a) Duncan, John. *Backwardness in Reading; Remedies and Prevention.* London, George G. Harrap & Co. Ltd., 1953, pp. 20-1; and (b) Great Britain. Ministry of Education. *Reading Ability.* London, HMSO, 1950, pp. 10-13.) London, Ministry of Education and the National Foundation for Educational Research.

CHAPTER IX

BASIC PRINCIPLES UNDERLYING THE TEACHING OF HANDWRITING

Ability to write is not only a hallmark of literacy; it is an essential aid to individual progress and group welfare, and there is interest throughout the world today as to the most effective methods of teaching children and adults to write legibly. Fortunately, many of the basic problems involved in teaching handwriting have been studied for centuries, and much has been learned about the difficulties in learning to write well and the relative merits of different methods of teaching handwriting. Furthermore, research during recent years has thrown additional light on the nature of handwriting and the factors that influence its development. In the discussion that follows attention will be directed toward certain facts and principles, supported by the results of past experience and research, that may be used as valid guides in developing handwriting programmes adapted to current needs.

A BRIEF SURVEY OF EARLIER PRACTICES AND TRENDS

A survey of earlier practices shows that attention in teaching handwriting was, in the past, centred largely[1] on matters relating to form and quality. Even as late as the nineteenth century a superior quality of handwriting was so greatly prized in many countries that schools devoted much time and effort to attaining high

1. Cf. the following publications:
Bivar, H. G. S. 'Learning to Write', *Education for All within Six Months: a brochure on adult education with special reference to Bengali.* Calcutta, Rabnidna Publishing House, 1949, Chap. VIII.
Callewaert, H. *Physiologie de l'écriture cursive*, avec 56 figures groupant des croquis de U. Wernaers, des photogravures extraites de films, des reproductions d'écritures, etc. Paris, Desclée de Brouwer & Cie, n.d., 122 p., illus.
Dottrens, Robert. *Cette écriture script....* Genève, Imprimerie du journal de Carouge S.A., 1951, 32 p.
Dottrens, Robert. *L'enseignement de l'écriture; nouvelles méthodes.* Paris, Editions Delachaux & Niestlé, S.A., 1931, 148 p. (*Collections d'actualités pédagogiques et psychologiques.*) (Discusses the deficiencies in earlier methods, describes the characteristics of the newer methods together with the evidence that supports them, and considers many practical problems faced in teaching handwriting.)
Freeman, Frank N. 'Language: the Development of Ability in Handwriting', *Child Development and the Curriculum.* Thirty-eighth Yearbook, Part I, of the National Society for the Study of Education. Bloomington, Ill., Public School Publishing Co., 1939, pp. 255-9.
Freeman, Frank N. *Teaching Handwriting.* Washington, D.C., Department of Classroom Teachers and American Educational Research Association of the National Education Association, 1954, 33 p. (*What Research Says to the Teacher.* 4.)
Freinet, C. *Méthode naturelle de lecture.* Cannes (Alpes Mar.), Editions de l'Ecole Moderne Française, 1947, 59 p. illus. (*Brochures d'éducation nouvelle populaire*, No. 30, Mai 1947.)
Fernández Huerta, José. *Escritura (didáctica y escala gráfica).* Madrid, Consejo Superior de

standards in this respect. There were also many schools which specialized in the production of excellent penmen.

Emphasis on form and quality was particularly marked in countries in which logographs (as in China), syllabaries (as in Japan), and non-Roman form letters (as in many sections of Asia) have been used. This was due to the fact that such characters are very complex and difficult to learn. In each country that used such characters one or more standard styles of writing were prescribed. In China, for example, similar models were provided in primary schools independent of the local dialects used. Practice began on the simplest characters and proceeded gradually to the more complex ones, until hundreds or even thousands had been learned. Some of the specific steps involved are outlined briefly in Chapter II (page 33). Although repeated efforts have been made to simplify the process of learning to write Chinese they have not proved very successful, owing to the highly complex nature of the characters. The solution, according to the Research Committee on the Reform of the Chinese Written Language,[1] lies in the development of a phonetic system for writing that language.

In India, as contrasted with China, each province prescribed a style of handwriting that was suited to the needs of the local language. In teaching both children and adults to write, practice[2] was provided first in the basic forms common to most letters—horizontal lines, vertical lines, oblique lines and curves. As these were mastered they were combined into letters which in turn were used in writing words and sentences. Synthetic methods were also widely used and applied in practically all other countries using non-Roman letters for writing. During recent years, efforts have been made in several countries to simplify the process of writing through the use of connected letters, to make use of word wholes in early writing activities, and to adjust teaching procedures to pupil needs. In Siam,[3] for example, the 'programme of studies imposes a fixed type of handwriting which is connected and perpendicular or slightly inclined to the right'. Some preliminary exercises are provided to prepare children for writing. No special method of teaching is required. Some copy books are used, but 'children are generally taught to attain perfection and form right habits by trying to imitate the writing of teachers'.

Until the middle of the nineteenth century synthetic methods also prevailed to

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Investigaciones Científicas, Instituto San José de Calasanz de Pedagogía, 1950, 225 p. (Summarizes scientific evidence from various countries relating to the nature of handwriting and methods of teaching pupils to write.)

Hamaide, Amélie. *La méthode Decroly*. 4e ed. Neuchâtel et Paris, Delachaux & Niestlé, 1946, 261 p. *(Actualités pédagogiques et psychologiques.)*

'Handwriting', in: Monroe, Walter S., ed. *Encyclopedia of Educational Research*. New York, Macmillan Company, 1950, pp. 524-9. (Summarizes research carried out in the United States of America.)

International Conference on Public Education, XIth. *The Teaching of Handwriting*. Paris, Geneva, Unesco, International Bureau of Education, 1948. (Publication No. 103.) (Summarizes replies from 48 countries to a questionnaire on current practices in the teaching of handwriting, sent out by the International Bureau of Education, Geneva.)

Lämmel, Arnold. *Elemente des Schreibens*. Iserlohn, Brause & Co., 1951, 96 p.

Dal Piaz, Riccardo. *La scrittura nella scuola elementare*. Terza edizione aggiornata. Torino, G. B. Paravia & C., 1950. (Discusses a series of problems involved in developing and maintaining a high quality of handwriting.)

Wright, G. G. Neill. *The Writing of Arabic Numerals*. London, University of London Press, 1952, 424 p. (Publications of the Scottish Council for Research in Education, XXXIII).

Yee, Chiang. *Chinese Calligraphy: an Introduction to its Aesthetic and Technique*. London, Methuen & Co. Ltd., 1938, Chap. VIII.

1. Chueh, Wie. 'The Problem of Reforming the Chinese Written Language', *People's China*, 10, 1954, pp. 18-26.
2. Bivar, H. G. S. 'Learning to Write', op. cit., Chap. VIII.
3. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., p. 105.

a very large extent in most countries using Roman letters. About 1850 notable reforms began to be introduced. For example, the use of copy books and pens spread rapidly and the muscular movement in writing was introduced. According to its proponents,[1] ease and rapidity in writing could be achieved only through the free and co-ordinated action of all parts of the body involved. In a sense departure from extreme devotion to form paved the way for the recognition of the role of other personal factors in learning to write.

The latter half of the nineteenth century was a period of vigorous discussion concerning such issues as styles of writing, position in writing and methods of teaching. Various systems of handwriting developed, each of which had its ardent advocates. As a part of this general development, vertical handwriting was introduced. It originated in France and Germany and spread rapidly to many other countries. This system was intended to eliminate some of the unhygienic aspects of the prevailing methods.

Since 1900, there have been many other developments. For example, the use of 'print-script' or 'manuscript' writing[2] was introduced during early school years to overcome some of the difficulties encountered by young children in learning to write. Words and sentences were used from the beginning with the object of motivating writing practice and making the various steps in it more meaningful. Provision was also made for transition in the early school years to a cursive style of writing. In response to the demand for a more uniform and standard type of writing, handwriting scales and methods of diagnosing and correcting deficiencies in writing developed. As an aid toward securing valid answers to many of the controversial issues raised, hundreds of scientific studies have been made. Through the influence of such leaders as Decroly, Dottrens, Freeman, and Freinet, many other changes have been made in writing programmes to adjust them better to the characteristics and needs of learners in general and of individuals in particular.

CRITICISMS OF EARLIER METHODS

During the course of the developments that have been described, there was strong controversy as to the merits of some of the earlier procedures in teaching handwriting. The issue most widely discussed concerned the validity of synthetic methods of teaching. In their defence, the following reasons were advanced: they aimed at high levels of competence in handwriting; they provided for the orderly mastery of the necessary skills by proceeding systematically from simple to more complex elements; the various steps could be described clearly and followed easily by teachers.

While recognizing these values, the use of synthetic methods was criticized by many teachers and writing specialists on other grounds. Of special interest are the views of Dottrens and of Freeman, both of whom are psychologists and specialists in handwriting of world-wide reputation. According to Dottrens,[3] the chief weakness of the synthetic method is that it ignores the principal factor—the learner. As will be explained later, a person's writing is a mark of his personality. By imposing a uniform pattern on all, individual differences are disregarded. Dottrens also pointed out that the forms of letters when they are connected in writing are affected by what precedes them. He maintained, therefore, that letters should be taught in relation-

1. Footer, B. F. *Practical Penmanship, a Development of the Carstairian System.* Albany, N.Y., A. Steele, 1832.
2. Both 'print-script' and 'manuscript' writing are simplified forms of writing. Each closely resembles print. Both are composed, as a rule, of straight lines and circles. Connected forms of letters are often used to aid in the transfer to cursive writing.
3. Dottrens, Robert. *L'enseignement de l'écriture,* op. cit.

ship to each other. Furthermore, he criticized the use of straight lines in preparatory exercises. He agreed with the conclusions of Montessori, who opposed the policy of laying emphasis on them at the beginning for two reasons: most letters have rounded forms, and the drawing of straight lines is harder than the writing of letters.

Freeman[1] stressed the fact that the chief purpose of handwriting is to express meaning. 'This intimate relation between writing and meaning affects profoundly the nature of the act of writing. Their union makes writing fundamentally a different thing from the movements by themselves or the meaning by itself.' The chief faults of the synthetic method are that 'it fails to harness the child's desire to write in the full sense of the word until he has gone through a long course of training, which to him has little significance'; and 'the act of writing and the expression of meaning tend to remain separate in the child's experience' and 'do not fuse as completely as they should'.

As a result of an extended survey of the literature on handwriting, Fernandez Huerta[2] summarized the limitations of earlier methods of teaching as follows: loss of initial interest in learning to write, because the exercises used failed to provide motive; division of the child's activities into unrelated fields; insistence on a perfection at the outset which can rightly be expected only at the last stage of learning; the rigidity of the process, with little adaptation to individual differences; little stimulus to creative capacity and development of personality; unwise use of sharp-pointed pens and of double-lined paper.

As implied by the foregoing criticisms, synthetic methods of teaching handwriting focused attention exclusively on the form and quality of writing. The style was dictated by purely external standards. In seeking to achieve superior quality, scant consideration was paid to the learner. Besides, only limited provision was made for growth in the functional and creative aspects of writing.

CURRENT METHODS OF TEACHING HANDWRITING

The methods of teaching handwriting that have developed during recent years are the product both of changed conceptions regarding the chief purposes of schooling and of research on child development and the psychology of learning. While modern practices differ in many significant respects, they generally coincide in a few basic principles and procedures. The points on which there is wide agreement will be considered first.

POINTS OF AGREEMENT

In introducing this section we refer briefly to four conclusions reached by the members of the eleventh International Conference on Public Education, which was attended by representatives from many countries in all continents and which focused attention during certain sessions on the problems of teaching handwriting. These conclusions were as follows: 'Writing is not only an educational technique but also a means of expression and an art which should combine personal style with the maximum elegance'; 'The rhythm of modern life demands more and more speed in writing'; method should be 'progressively better adapted to the latent capacity of the child'; and the purpose of teaching handwriting is 'to enable every child to write as well as

1. Freeman, Frank N. *The Teaching of Handwriting*, op. cit., pp. 9-10.
2. Fernández Huerta, José. *Escritura (didáctica y escala gráfica)*, op. cit.

he is able to at a reasonable speed'.[1] The above conclusions harmonize closely with the results of research as summarized here.

Recognition of the Characteristics of the Learner

Underlying most modern methods of teaching handwriting is the assumption that they should be adapted to the characteristics and needs of those taught. In applying this view, the requirements made at different age levels are adapted to the stage of development of the learner, the standards set and the techniques used being adjusted to individual capacities, while the progress required is based on a recognition of differences in rates of learning.

In support of the basic principle under discussion, Dottrens,[2] cites the results of research. He first calls attention to the findings of Vogt, who studied the anatomy of childrens' hands and showed that there are various morphological types. He also showed that the differences between these types affect handwriting and that the same tools for writing are not equally well adapted to all.

Dottrens also refers to the findings of Rossgers, who asked children to reproduce a model of the teeth of a handsaw in order to test their aptitude for writing and to evaluate their power of graphic expression. After analysing these reproductions, he classified the children into four groups: those who reproduced the drawing accurately; those who reversed the direction of the teeth; those who reproduced only the vertical lines; and those who merely scribbled. He concluded that the fourth group were not yet ready for writing and that the others required individual attention according to their classification.

The importance of attention to the characteristics and needs of individuals is further supported by the following conclusion, based on a summary of research concerning individual differences in handwriting. 'It appears clear that instruction [in handwriting] should be individualized at least to the extent of varying the requirements according to the abilities of pupils and of giving individual guidance in learning. The analysis and correction of errors is one mode of such guidance. The adjustment of hand position and movement to the peculiarities of the individual may be another.'[3]

The differences between children and adults also merit further study. Adults have greater muscular control than children but their hands and fingers are stiffer. Again, most adults who enter literacy classes are far more 'self-motivated' and can be counted on to apply themselves more steadily and to work harder. The current recognition of the importance of such differences justifies the assertion that instruction in handwriting is far more learner-centred than formerly.

Activities that Prepare for Writing Essential

Closely associated with the foregoing trend is the fact that much preliminary training is now provided for young children before actual instruction in learning to write begins. 'Before the tools for writing are put into the child's hands and he is asked to trace his first letters and his first words, it is necessary that he should be prepared for this new and, for him, difficult accomplishment by means of exercises, the importance of which is primordial.'[4] This need is so fundamental that it was recognized long before modern methods of teaching handwriting were developed. During

1. International Conference on Public Education, XIth. *Proceedings and Recommendations*, op. cit.
2. Dottrens, op. cit., p. 34.
3. 'Handwriting', in: Monroe, Walter S., ed. *Encyclopedia of Educational Research*, op. cit., p. 527.
4. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., p. 15.

recent years increasingly wide use has been made of preparatory exercises in many communities, independent of the type of character used in writing. In most cases where children attend nurseries, kindergartens or infant schools, preparatory training is provided through simple play activities of various types—handwork, drawing or modelling. In other cases the training provided is much more specific; for example, free motion at the blackboard, or the tracing in the sand of a word, such as one's name.

The importance of highly motivated activities that prepare children for writing is emphasized by Freinet.[1] In discussing the early develoment of children he points out that the desire to learn to write has its origin in the 'natural' desire of the child to express himself. As he plays with a pencil he gradually learns to draw simple and later more complex objects. In the course of this development, he acquires motor control and comes to realize the fact that he can give expression to his ideas through drawing. After seeing his teacher write and recognizing that words represent ideas, he begins to feel the need to write captions under one or more of his pictures. Through imitation a written legend, however imperfect, is added. Thus gradually, step by step, the child, through responding naturally to his own urges and the stimulus provided by his environment, makes himself ready to participate in a broader range of writing activities. In Freinet's judgment, the foregoing process precedes, as a rule, the emergence of a desire to learn to read.

The value of drawing in promoting readiness for writing was recognized more than a hundred years ago. In a review of Pestalozzi's theory and practice, as well as those of some of his contemporaries, Walch reached the following conclusions: 'Because the child is able to draw pictures at least two years before he is able to wield a pen sufficiently well to write, children should be taught to draw before learning to read.... Practice in drawing makes the formation of letters easier, and less time is needed to teach their formation because the child has acquired a certain degree of accuracy, precision and perfection.'[2]

Emphasis on Wholes in Initial Teaching

Most modern methods of teaching handwriting begin by laying emphasis on words or larger units rather than on letters. In support of this practice, Dottrens[3] cites the findings of Winckler, who studied the ability of 2,000 children between the ages of 5 and 7 to recognize forms differing in regularity of outline. Wide differences were revealed. Since the outlines of letters differ to an even greater extent, he concluded that children would have even greater difficulty in recognizing such details. He maintained that the traditional practice of starting with the elements of words was erroneous and that the proper approach is through larger language units.

In reaction to the foregoing view, Freeman agreed that the teaching of handwriting should begin with wholes, but for a somewhat different reason. According to him, 'the word is not a simpler perceptual or writing unit than the letter. Neither can be a motor whole until the child has learned the constituent movements by which it is produced. He can learn each movement separately, or he can learn them in sequence; they become fused with practice. The greatest value of beginning with

1. Freinet, C. *Méthode naturelle de lecture*, op. cit.
2. Walch, Sister Mary Romana. *Pestalozzi and the Pestalozzian Theory of Education. A Critical Study.* A doctor's dissertation, The School of Arts and Sciences, The Catholic University of America, 1952, pp. 134-5.
3. Dottrens, Robert. *L'enseignement de l'écriture*, op. cit.

the whole lies in the fact that it alone has meaning and it is the meaning that leads to the fusion of the separate movements.'

Evidence of the practical value of beginning with words and phrases was secured by Dottrens[1] and Miss Margairaz, who carried out a series of studies to determine the effectiveness of the global approach to handwriting. The results showed that the child learns to write as well, if not better, by the global method as by the method of isolated signs. It is indeed a double error to try to teach pupils to write by a synthetic method. In the first place, a child can identify the whole readily, but he can visualize details at first only with difficulty. Secondly, the details of letters and words as taught by synthetic methods have no meaning or significance for him. Attempting to learn by such procedures is, therefore, a seemingly purposeless task which fails to elicit vigorous effort.

The evidence just cited was obtained largely through experiments based on the use of Roman-type letters. However, reports of the problems faced in countries using other types of characters justify the belief that the conclusions arrived at apply generally. Owing to the highly complex nature of the characters used in some countries, special problems arise in attempting to use meaningful wholes from the beginning. They merit intensive study in the effort to develop methods that are psychologically sound.

Initial Use of Simple Forms of Writing

As a means of overcoming some of the difficulties faced by young children in learning to write, simple styles of writing have been adopted in many countries. They consist of plain letter forms usually based on straight lines and curves, and are referred to by different writers as 'script', 'printscript' and 'manuscript' writing. Although the forms adopted vary somewhat in different countries, their purpose and underlying principles are identical; these are: 'legibility and neatness, facility of acquisition, similitude between the written and printed letter forms (an advantage when reading and writing are taught simultaneously), simplicity and aesthetics.'[2] When the world-wide summary of current practices in teaching handwriting was prepared in 1948,[3] the term 'script' writing was applied to the various simple forms of writing there reported. This term will also be used in the discussions that follow, except when quoting or referring to studies in which either 'print-script' or 'manuscript' is used.

As a rule, script writing is used during the first two years of school. It is both more legible and more rapid than cursive writing for pupils in the primary school and is learned easier and quicker.[4] We give below a recent summary[5] of the advantages of script writing at this level.

'The letters have simpler forms than in cursive.

'No strokes are needed to join the letters, although connected forms are often used.

'Manuscript is similar to drawing with which the children are acquainted.

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1. Dottrens, Robert. *L'enseignement de l'écriture*, op. cit., p. 39.
2. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., pp. 17-18.
3. ibid.
4. 'Handwriting', in: Monroe, Walter S., ed. *Encyclopedia of Educational Research*, op. cit., p. 525.
   Voorhis, Thelma G. *The Relative Merits of Cursive and Manuscript Writing*. New York, N.Y. Bureau of Publications, Teachers College, Columbia University, 1931.
   Heese, J. de V. 'The Use of Manuscript Writing in South African Schools', *Journal of Educational Research*, Vol. XL, Nov. 1946, pp. 161-77.
   Philippines. Department of Education. Bureau of Public Schools. *Bulletin* No. 26. Manila, 1951.
5. NEA Research Division. *Manuscript Handwriting*. Washington, D.C., National Education Association of the United States, 1951, pp. 6-7.

'Manuscript uses the same alphabet the children meet in reading and thus eliminates confusion arising from having to learn two forms of each letter.

'Children can learn to express ideas on paper more quickly if they use manuscript, so that they get an early feeling of satisfaction.

'There are fewer failures.

'On charts, booklet covers and art work, manuscript has a clearer and more pleasing appearance than cursive writing.

'Children can compare their letters with printed ones and thus more easily detect errors in the formation of letters.

'Less eyestrain and possible physical strain is involved in the learning of manuscript than is involved in learning cursive.

'There is need for less supervision of the pupils than in teaching cursive.

'Manuscript, by making written expression easier, encourages creative expression.

'The clarity of manuscript tends to create emotional security.

'Manuscript is suited to the muscular and motor development of primary children.'

The most frequent arguments against the use of manuscript are the following:

'Children must learn a second form of letters when they transfer to cursive writing.

'They may have difficulty when required to make the change, thus affecting their rate of learning.

'Many children who learn manuscript have difficulty in reading cursive writing.

'Unless manuscript writing is well done it lacks the rhythm of cursive writing.

'Some critics of manuscript maintain that there is less chance for individuality of style in manuscript than in cursive writing.

'Many teachers are not trained to use or teach manuscript.

'Parents often prefer cursive writing and insist that it be taught.'

The prevailing practice[1] in several countries is to teach script writing in grades 1 and 2 and then to discontinue its use in the third grade in favour of cursive writing. Very few schools continue to use it throughout the elementary school period, although several educators argue, on the basis of a certain amount of objective evidence, that it should be retained as the permanent form of writing. School authorities in the Philippines[2] recommend that the transition should be made during the latter part of the second grade. As a result of a comparative study of the handwriting scores made by over three thousand pupils in standards 1 to 7 of South African schools, Heese[3] found that pupils 'who made the transition from print-script to cursive writing at an early stage scored significantly better than those who changed over at a later stage in their school career'. Equally important is the fact that 'significantly better scores were obtained by those pupils who first used manuscript writing and then changed over to cursive writing at an early stage than those pupils who always used cursive writing'.

The wisdom of continuing the use of script writing beyond the early school grades has been widely discussed. One of the chief issues lies in the comparative speeds of script and cursive writing among more advanced pupils. Most of the

1. Freeman, Frank N. 'Survey of Manuscr pt Writing in the Public Schools', *Elementary School Journal*, Vol. XLVI, March 1946, pp. 375-80.
Polkinghorne, Ada R. 'Current Practices in Teaching Handwriting', *Elementary School Journal*, Vol. XLVII, Dec. 1946, pp. 218-24.
Wisconsin. Department of Education. Committee for Research in Handwriting. *Handwriting in Wisconsin. A Survey of Elementary School Practice.* Madison, University of Wisconsin, 1951, 77 p. (*Bulletin* of the School of Education.)
2. Philippines. Department of Education, Bureau of Public Schools. *Tentative Guide in Teaching Manuscript Writing*. Manila, c. 1951. (Enclosure to *Bulletin*, No. 16.)
3. Heese, op. cit., p. 176.

findings reported indicate that cursive writing is the more rapid.[1] Exceptions have been noted in the case of high school pupils[2] who have always used manuscript. In discussing this issue Freeman points out that longer pauses are made between letters in manuscript writing than in cursive. This slows down the writing. 'If it is speeded up to equal cursive writing, it loses its characteristics merit, legibility.' Others maintain that this limitation can be overcome through the use of connected letters. Obviously further research is needed before final conclusions can be reached.

The relative advantages of script and cursive writing for adults have not been studied as extensively as they should. The opinion prevails that adults usually write more legibly when using script. The increasingly large number of requests that print-style writing be used in filling out forms supports this view. Results of objective studies show that adults usually do script writing more slowly and carefully than cursive writing. Washburne[2] points out that this is due primarily to the greater amount of experience and practice in cursive writing. No study has been made as yet to determine whether script writing, when produced as rapidly as cursive writing, is as legible as the latter. Moreover, little evidence is available concerning the comparative speed and quality of script and cursive writing among those who have had equal amounts of training in each.

The greater simplicity of the script forms and the stiffness of the fingers and hands of many adults argue for the use of script writing in literacy classes, at least at the beginning. This issue will be considered further in Chapter XI, which discusses the handwriting programme for adults.

The Development of the Handwriting Movement

Many studies have been made during the last 50 years of the nature and development of the handwriting movement, particularly in cursive writing. The main findings of these studies, as summarized by Freeman,[3] are as follows:

Uniformity. An analysis of changes in both speed and pressure shows that the 'child's writing movement is more irregular or variable than that of the adult'. Individual strokes are made with greater uniformity of pressure and speed as the child matures. In fact, uniformity is a characteristic of increasing skill and maturity.

Continuity. The writing movement also gains in continuity and structure with increase in maturity. Research by various investigators shows that the adult 'tends to write letters and words as units, whereas the child writes them as a series of more nearly separate strokes. Furthermore, the child makes longer pauses between strokes'. These facts argue, according to Freeman, for the use by younger children of script writing, 'which consists of separate strokes', and by older children and adults of cursive writing, 'which permits words to be written as units'.

Rhythm. The results of various studies indicate that writing becomes more rhythmical with increasing skill and maturity. This is related to the fact that mature writing tends to be written in wholes rather than in a succession of separate strokes. Each such unit is one of a succession of movements which tend to be made in equal time-intervals. The acquirement of a rhythmical succession of movements is another feature of the maturing process.

1. 'Handwriting', in: Monroe, Walter S., ed. *Encyclopedia of Educational Research*, op. cit., p. 525.
2. Washburne, Carlston and Morphett, Mabel Vogel. 'Manuscript Writing—Some Recent Investigations', *Elementary School Journal*, Vol. XXXVII, March 1937, pp. 517-29.
3. Freeman, Frank N. 'Language: the Development of Ability in Handwriting', *Child Development and the Curriculum*, op. cit., pp. 255-60.

Special form of movement. This refers to arm or muscular movement. The evidence available shows that when a child is required to learn to use arm movement in writing, he does so slowly. Those in the first year of school use a little arm movement, those in the second year a little more, and so on. 'This indicates that arm movement is difficult to acquire, is unsuited for young children, and, if it is taught at all, should not be emphasized until the child has acquired a fair degree of motor skill, probably in the intermediate grades.'

In the light of the above, the conclusion was reached that a complex motor skill such as handwriting is the result of slow growth. It is the product, of course, of both maturation and practice. A reasonable amount of skill can be acquired in the early school years *if the type of writing and the requirements of speed and quality are* adjusted to the ability of young children; but practice in writing should be continued throughout the elementary school period and until reasonable efficiency in a mature form of writing has been acquired. Dottrens pointed out that changes occur in writing during puberty, as in the case of the voice; this justifies the recommendation that the supervision of writing should continue during this period.

The foregoing discussion has identified five widely accepted principles or practices in the current teaching of handwriting to children:

1. The learner is the chief focus of attention, and many adjustments are made in teaching procedures in recognition of individual differences.
2. Preliminary training is provided to promote increased readiness for writing whenever it is needed.
3. Initial writing experiences tend to be based on words as contrasted with word elements.
4. A simplified form of writing is used in preference to cursive writing during early school years in most countries using an alphabetic language and to some extent in other countries.
5. Skill in handwriting develops slowly as a result of both maturation and practice.

At this point, theory and practice begin to differ and controversial issues emerge.

CONTROVERSIAL ISSUES

One of the striking differences in the current theory, as well as in the practice, of teaching handwriting relates to the style of writing to be used. In many countries a selected style of cursive writing is used either from the beginning or, preferably, following the initial use of script. The aim of the guidance provided in such cases is to help pupils to attain the selected style as nearly as possible. This practice is based on several assumptions. The first is that some styles of writing are superior to others in the sense that they are better adjusted to the child's physiological characteristics, are superior in legibility, are more artistic, or favour greater speed in writing while maintaining good quality. A great deal of constructive thought has been given to these issues. As a result numerous systems of handwriting have developed whose claims to superiority are partly based on considerations of specific characteristics of style. Various styles of writing used in different countries and related systems of teaching handwriting are discussed at some length in *The Teaching of Handwriting*.[1]

Other assumptions underlying the use of a given style are that (a) when used throughout a school or school system it ensures progressive development from year to year: (b) it leads to better quality of writing because all teachers are aiming at

1. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., pp. 17-24.

similar results; and (c) its use over a period of time enables teachers to develop increased skill in teaching pupils to write well.

It is also claimed that wherever commercial interests are involved the advantages and limitations of the respective styles of writing are studied more thoroughly, and that better equipment and more effective guides or manuals for teachers are made available. All of these assumptions have some validity. The real issue is: are such advantages greater than those attaching to other plans?

A Common Versus an Individual Variation in Style of Writing

In opposition to the policy of using a selected style, many authorities maintain that the child should be left free to create the letter forms that he will use. This point of view was expressed as early as 1917 in the following statement by the Ministry of Education in Prussia: 'During the process of teaching, the child must not be obliged to follow a special type of writing but must be allowed to develop according to the measure of his personal aptitudes. The results of teaching should be to obtain good handwriting having a personal character.'

Decroly and Dottrens[1] favour this point of view. Children belong to different morphological types which influence their individual style of writing. By allowing them to develop according to their personal aptitudes it is assumed that each will discover the style of writing most appropriate to him. As an aid in this connexion, Lämmel[2] recommends that various good letter forms should be presented as models rather than a single fixed form.

Among those who believe that individual styles of writing should be aimed at there are differences in point of view concerning when and how individuality should be encouraged. The preceding discussion implied that it should be encouraged from the beginning. Freeman[3] maintains that the child has to copy some form when he first begins to write. As the child develops, individuality begins to express itself if it is not suppressed. It should be encouraged, so Freeman thinks, in so far as it does not result in illegible writing. Other writers, such as Lämmel, agree that the child should at first use forms that are easy and familiar to him. The use of capitals has been recommended in the case of languages with Latin characters. An experiment carried out in Geneva with children between the ages of 5 and 6 showed that they wrote in capitals more quickly than they did in small letters.

Those who favour the plan of permitting the child to discover the forms best adapted to his needs do not agree that his development will be unduly delayed as a result. They maintain that if the child does not quickly discover such forms he will the more readily accept guidance from others. In brief, the plan enables the child to make as much progress as he can on his own. Based upon the results of his efforts, a plan of teaching is adopted which will help him along the lines of his individual potentialities to develop a legible style of writing.

The discussion has thus far indicated that certain advantages attach to the adoption of a specific style of writing and that other advantages attach to permitting the child to discover the style best suited to his aptitudes. The choice will depend largely on circumstances. Given a well-trained group of teachers who are familiar with the course of child development and are skilled in the art of adjusting instruction to individual needs, the latter system secures excellent results. But with a relatively untrained group of teachers, the former system will be easier to apply and will

1. Dottrens, op. cit., p. 45.
2. Lämmel, op. cit., p. 44.
3. Freeman, Frank N. *Child Development and the Curriculum*, op. cit., p. 259.

doubtless prove more suitable. Of the two, it is the one more widely used at present. All teachers should bear constantly in mind, however, that individuals tend naturally to adopt styles of writing in keeping with their particular capabilities.

Vertical versus Slanted Writing

Where some prescribed style is preferred, the question arises as to which of the various styles should be chosen. The problem that has been most widely discussed and investigated, apart from script versus cursive writing, concerns the relative merits of vertical and slanted writing.

Towards the end of the nineteenth century, the belief arose that vertical writing was superior to slanted writing because it promoted better writing posture and was easier on the eyes. The unfavourable conditions which the advocates of vertical writing sought to correct resulted from the habit, developed by pupils using slanted writing, of sitting with the right side of the body towards the desk with the left elbow unsupported. These difficulties were largely overcome when a front position with both arms on the desk was assumed. It also equalized the distance from the eyes to the material being written.

The advantages and disadvantages of the adjustments proposed above have been brought out clearly in the following summary of research and expert opinion: 'It is true that when the paper is tilted as in slanting writing there is a tendency for the head to be turned to the left and that this may produce some curvature of the spine. However, the position of the paper in slanting writing, which is perpendicular to the forearm, conforms better to the requirements of movement of the head and arm. It permits the hand to move across the paper by a sideward movement of the forearm about the elbow as a centre. The downward movements of the letters are naturally made towards the body. This direction, in combination with the position of the paper, determines the slant of the writing. The advantages in respect to movement have been commonly taken to outweigh the disadvantages due to the tendency of the head to turn to the left, although no scientific evaluation of the relative importance of those two factors has been made.'[1]

Additional studies referred to in the summary from which the preceding paragraph is quoted show that the 'sideward movement of the hand made by rotating the forearm is among the easiest and most rapid' of the various movements investigated. The evidence also suggests that movements towards the body (the up- and down-strokes of the letters) are most preferred. When these two sets of movements are combined the result is slanted writing. In other words, the evidence now available favours a moderate amount of slant. It does not, however, determine which of the various systems of slanted writing is the best. As Fernandez Huerta points out, it is impossible at present to pronounce judgment in favour of a specific system because the objective evidence on which such a decision should be based is not yet available.

ANSWERS TO OTHER SPECIFIC QUESTIONS

Many questions arise concerning the best practice to adopt in specific situations. This section attempts to provide brief answers to some of these questions. Unless otherwise indicated, the answers given are based on a summary of research in handwriting,[2] to which reference has already been made in this chapter.

1. 'Handwriting', in: Monroe, Walter S., ed. *Encyclopedia of Educational Research*, op. cit., p. 525.
2. ibid., pp. 524-9.

MADRAS INSTITUTE OF DEVELOPMENT STUDIES
74. SECOND MAIN ROAD
GANDHI NAGAR, ADYAR, MADRAS-600020.

Should Finger Movements supplement the Larger Arm Movements in Writing?

The results of observation and objective studies show that children and adults tend to use, as a rule, a combination of movements of arm, hand and fingers. Certain studies among children indicate that those who use the combined movement write as well as those who use the arm movements only. It is particularly important that the position of the hand should be such that the movement from one letter to the next and from one word to the next can proceed smoothly. This is achieved by observing the 'traction' principle, which involves 'arm movement and the pivotal movement of the hand on the wrist, the fingers resting lightly on the pen.'[1]

Are Special Periods Desirable for Practice in Handwriting?

It is sometimes argued that improvement is best secured when attention is directed entirely to the ideas being expressed rather than to the specific improvement of the writing. While the evidence is inconclusive, 'general observation appears to indicate that where the incidental method is used exclusively, writing is inferior'.

Is there a Relationship between the Amount of Time devoted to Special Practice in Handwriting and the Rate of Improvement?

Available data reveal little, if any, relationship. It has been suggested that this may be due to lack of motivation and to the use of methods which are inefficient and unprecise.

Is the Analysis of Errors in Handwriting a Valuable Aid to Improvement?

The results of several experiments indicate that it is very effective. The types of analysis that can be made will be discussed in the section on 'diagnosis'.

Should Ball-pointed and Fountain Pens be Used?

In the opinion of the specialists who were consulted, the ball-pointed pen may be used instead of pencils after the initial stages in learning to write, provided the size is appropriate to the child's hand. Wright[2] points out that the fountain pen has the advantage of freeing the writer from 'the need to carry an ink horn' and from the use of pencils and ball-pointed pens that smudge. This implies a disadvantage in the use of some ball-pointed pens.

Should Pupils be Permitted to Write with their Left Hand?

Writing specialists have often recommended that left-handed writing be discouraged because the conditions of writing favour the right hand.[3] Psychologists, however, warn us that the left-handed child should not be compelled to write with his right hand. They believe that a forced change results in poorer writing, and in some cases, in speech disorders. On the basis of available evidence two conclusions seem valid: 'strongly left-handed children should be allowed to write with their left hand'; and 'if preference is not very decided, it is better to teach the child to use his right

1. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., p. 21.
2. Wright, op. cit., p. 194.
3. This discussion assumes that Roman characters are used and that progress is from left to right across the page.

hand'. When the left hand is used, the position of the paper on the desk should be reversed, that is, tilted slightly to the right. At this angle the left-handed pupil may write back-hand more easily than forward slant. As pointed out by Freeman,[1] the foregoing facts imply that steps should be taken as soon as a child enters school to find out by suitable tests whether he is more skilful with his left or his right hand.

MEASURING PROGRESS IN LEARNING TO WRITE

Teachers have always measured progress in learning to write in terms of personal judgment. They have also collected samples of children's writing and by comparing specimens submitted on different occasions have been able to verify progress made. During the last few years, objective techniques for measuring progress have been developed which can be applied more or less uniformly by teachers in different schools or communities. The chief writing characteristics measured have been speed and quality.

The speed of writing is usually measured by the number of letters written in a given length of time. The material written is something which the pupils have memorized thoroughly, or know so well that writing is continuous during the test period. Every effort is made to avoid any pauses in writing due to thinking about what is being written or attempting to recall the next word or sentence. Two minutes have been generally adopted as the length of the writing exercise. It is important that all pupils should begin and stop immediately the signals 'begin' and 'stop' are given. At the end of the test the number of letters written is counted. As a rule, the score is expressed in terms of the number of letters written per minute.

The quality of handwriting is measured objectively through the use of a handwriting scale. This consists of a series of samples arranged in order of increasing merit. The first scale of this type was published in 1910 by Thorndike.[2] Two of the most recent scales published were devised in Spain, one by Fernández Huerta,[3] and the other by the Escuela Especial de Orientación y Aprovechamiento (Special School for Educational Guidance and Proficiency) at Valencia[4] (see Figure 18). A special scale for measuring the quality of the handwriting of adults[5] was published as early as 1920 by the Russell Sage Foundation (see Figure 19).

Those responsible for the handwriting scale shown in Figure 18 adopted a relatively simple procedure. Twenty-four representative samples of writing were selected from those submitted by 2,330 pupils. Each of 11 teachers was asked to grade these samples from good to poor in order of preference. The median of the various grades given was selected as an index of quality of each sample. Through the use of the Catell Well Technique the order of priority was determined. By selecting each alternate sample two scales were devised, one of which is reproduced in Figure 18.

In using a handwriting scale, the teacher places the specimen of writing to be judged opposite the best sample on the scale (see (I) in Figure 18). The specimen is then moved along the scale from (I) to (III), (V), etc., until a sample is found which appears to be the same as the one being judged. The same procedure is

1. Freeman, Frank N. *Teaching Handwriting*, op. cit., pp. 20-2.
2. Thorndike, E. T. 'Handwriting', *Teachers College Record*, Vol. II, 1910, pp. 1-93.
3. Fernández Huerta, op. cit.
4. 'Medida del rendimiento escolar: el nosograma', *Revista de Psicología y Pedagogía Aplicadas*, Vol. I, Nos. 1 (pp. 65-98) and 2 (pp. 61-98), 1950. Valencia, Escuela Especial de Orientación y Aprovechamiento del Excmo. Ayuntamiento.
5. Ayres, Leonard P. *A Scale for Measuring the Quality of Handwriting of Adults*. New York, N.Y., Russell Sage Foundation, 1920, p. 11.

repeated, beginning with the poorest sample on the scale and moving towards the better samples. When agreement is reached by the two procedures, the value of the selected sample on the scale is adopted as the score of the specimen. It is usually advisable to judge a specimen on three separate occasions before reaching a final decision.

Obviously, in using a handwriting scale individual opinion is involved. Two people will not always agree on the same score to be given to a particular specimen of writing. However, experiments have shown that the use of a scale 'results in more reliable measurements than those which teachers assign without a scale, and that training in the use of a scale increases the reliability of the scores'.[1]

The use of objective measurements of speed and quality of handwriting makes various types of study possible, such as: the current progress and needs of individuals; the relative achievements of different classes, schools and regions; the relative merits of different methods of teaching handwriting, and other issues arising from hand writing programmes. Examples of such uses of objective measurements will be given in Chapters X and XI.

DIAGNOSIS AND REMEDIAL MEASURES

Teachers have always studied with care the nature of the difficulties encountered by children and adults in learning to write, and on the basis of the facts ascertained have given individual guidance in meeting them. During recent years, much progress has been made in developing methods of achieving these ends more objectively and expertly.

As early as 1915, Freeman[2] devised an analytical scale for judging handwriting (see Figure 20). It includes samples illustrating varying degrees of quality with respect to five elements, namely, uniformity of inclination, alignment, width of strokes, form of letters, and spacing. By following the directions that accompany this scale it is possible for a teacher to identify the various individual errors being made. On the basis of these facts a correct programme can then be developed for overcoming each of them in turn.

A second aid in determining the weaknesses and needs of individuals is a score card for the measurement of handwriting.[3] An example is given in Figure 21. It directs attention to the following aspects of writing: heaviness of line, inclination, size, alignment, spacing of lines, words and letters, neatness and formation of letters. Through its use a detailed study can be made of individual needs and appropriate teaching procedures. Obviously, the specific items included on a score card will vary with the differences in the chief characteristics of the writing of different languages. One of the best recent summaries of the efforts made so far to develop diagnostic scales and score cards was prepared by Fernández Huerta.[4] It includes an extended bibliography of more than 200 scientific studies and reports on handwriting prepared in various countries.

The special difficulties encountered by pupils in learning to write have been studied by specialists in several countries. As a result of experiments in Italy with slow learners, Maria Montessori[5] found that tracing letters both in the air and on

1. 'Handwriting', in: Monroe, Walter S., ed. *Encyclopedia of Educational Research*, op. cit., p. 528.
2. Freeman, Frank N. 'An Analytical Scale for Judging Handwriting', *Elementary School Journal*, Vol. IV, 1915, pp. 432-41.
3. Gray, G. T. *Gray's Score Card for the Measurement of Handwriting.*
4. Fernández Huerta, op. cit.
5. Montessori, Maria. *Formazione del'uomo; Pregiudize e nebule. Analfabetismo mondiale.* (Gernusco sul Naviglio, Italy) Garzanti (1949) pp. 109-10.

special forms was of great help. Bonnis[1] carried out studies with retarded children in France, including both left-handed ones and those with speech defects.

In order to help them become thoroughly acquainted with the letters and their distinct forms, he devised a series of alphabetic teaching methods which he made as simple, amusing and effective as possible. The letters were printed on small charts along with pictures and words representing them. Each such word began with the letter to be learned. Through interesting game devices associations were established between the sight of the letter, its sound and a recognizable object.

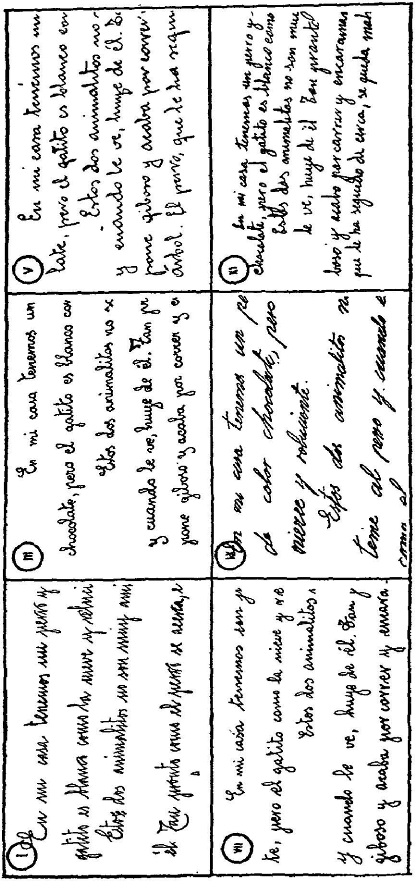
As a result of extended studies of children who had difficulty in learning to read, Mrs. Borel-Maisonny[2] found that children who failed to learn to read readily because of inaccurate orientation (order and correct position of letters) had difficulty also in learning to write. Various investigators have reported on the value of tracing exercises in overcoming this handicap. Mme Borel-Maisonny further found that writing difficulties may be due to lack of motor co-ordination and other physical and neurological maladjustments which often call for the help of specialists in correcting them.

CONCLUDING STATEMENTS

The discussions in this chapter indicate that whereas changes in the teaching of handwriting were limited in number and occurred slowly prior to the nineteenth century, reforms have followed each other in rapid succession during recent decades. In reviewing these developments attention has been directed to the principles and practices in teaching handwriting that are supported by the results of experience and research. A number of controversial issues which merit further study have also been noted. In the next two chapters we shall discuss the nature and organization of handwriting programmes adapted to the needs of children and of adults.

1. Bonnis, L. 'Apprentissage de la lecture (simplification et combinaison des méthodes en usage)', *Psychologie de l'enfant et pédagogie expérimentale*, bulletin mensuel no. 405, IV-VI 1952, pp. 125-8; no. 407, X-XI 1952, pp. 174-80. Paris, Société Alfred Binet.
2. Borel-Maisonny, S. (Mrs..) 'Comment apprendre à lire; méthode combinée... spécialement pour enfants présentant des troubles du langage et rencontrant des difficultés', *Psychologie de l'enfant et pédagogie expérimentale*, bulletin no. 386 et 387, XII 1948-III 1949, pp. 343-94. Paris, Société Alfred Binet.

Series A



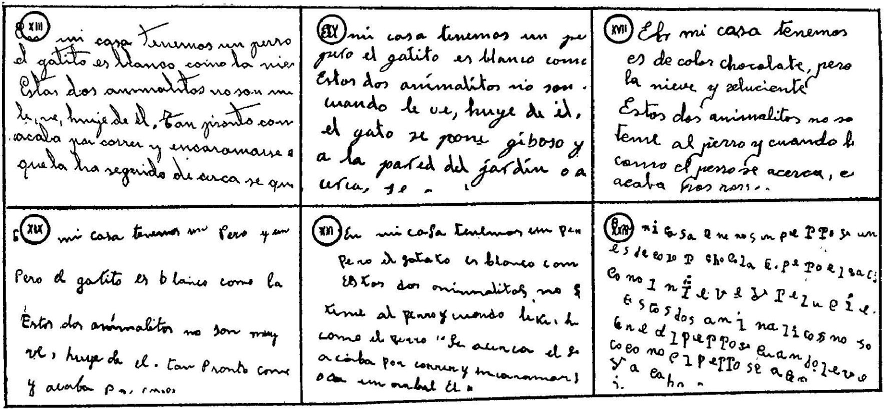


Figure 18. This is one of two handwriting scales for measuring the quality of children's handwriting in Spain. It consists of a series of 12 samples varying from very good to very poor. A specimen of handwriting to be graded is compared with these samples and is given a score corresponding to the number of samples to which it most nearly compares in quality.

Revista de Psicología y Pedagogía Aplicadas. Publicada por la Escuela Especial de Orientación y Aprovechamiento del Excmo. Ayuntamiento de Valencia, Vol. I, 1950, Num. 2, pp. 73-4.

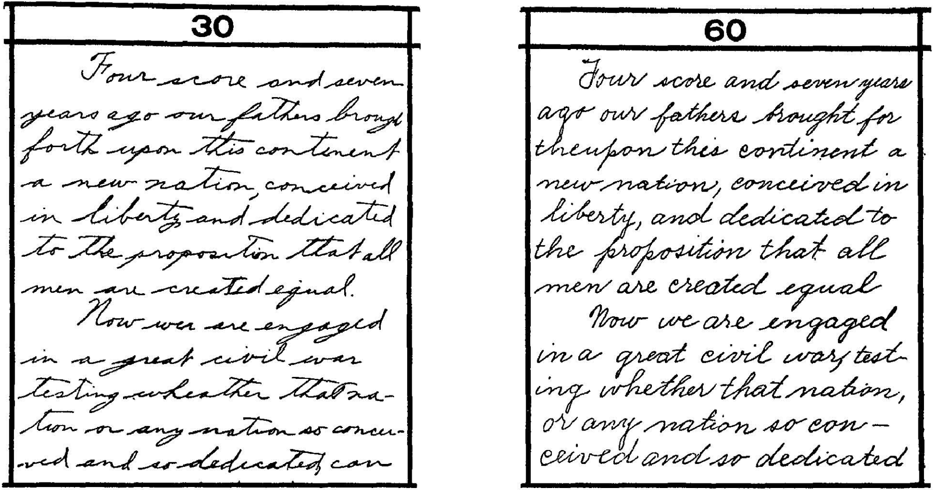


Figure 19. *Measuring Scale for Handwriting* (Gettysburg Edition. Russell Sage Foundation, 130 East 22nd Street, New York, N.Y., 1917). This handwriting scale has been widely used in the United States for measuring quality of handwriting above the primary grades. It is applied in the same manner as the one shown in Figure 18. Its difference lies in that both children and adults write down the same text, namely, a portion of Lincoln's 'Gettysburg Address' which they already know or commit to memory before the test. Each student writes for two minutes. The number of letters written per minute represents the student's speed score.

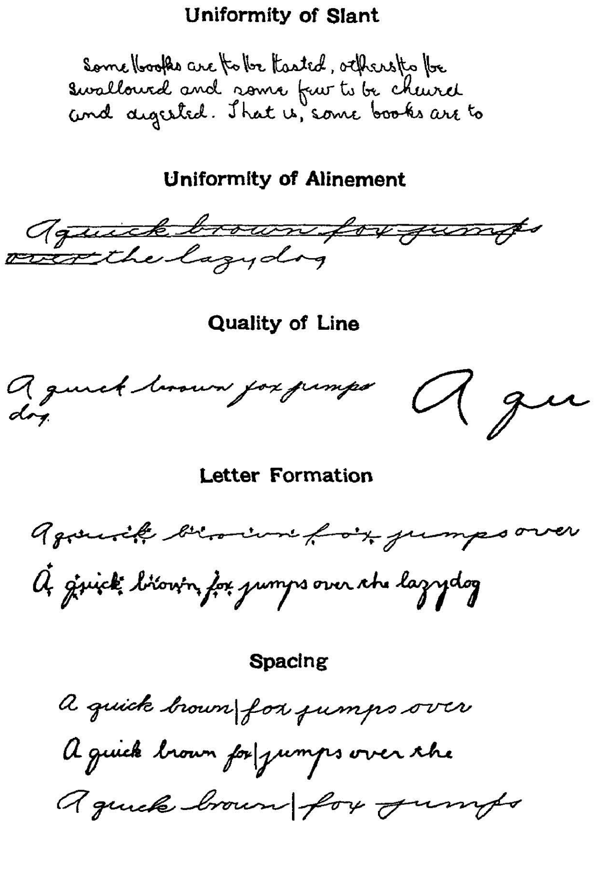


Figure 20. *The Freeman Chart for Diagnosing Faults in Handwriting*. The Riverside Press, Cambridge, Massachusetts.

Standard Score Card for Measuring Handwriting

By

C. TRUMAN GRAY.

Pupil.. Age............... Date..................................

Grade.. School..................................

Sample Number.................... Teacher..............................

Sample	Perfect Score	1st mo.	2nd mo.	3rd mo.	4th mo.	5th mo.	6th mo.	7th mo.	8th mo.	9th mo.	10 mo.
1. Heaviness	3										
2. Slant	5										
Uniformity											
Mixed											
3. Size	7										
Uniformity											
Too large											
Too small											
4. Alignment	8										
5. Spacing of lines	9										
Uniformity											
Too close											
Too far apart											
6. Spacing of words	11										
Uniformity											
Too close											
Too far apart											
7. Spacing of letters	18										
Uniformity											
Too close											
Too far apart											
8. Neatness	13										
Blotches											
Carelessness											
9. Formation of letters	(26)										
General form	8										
Smoothness	6										
Letters not closed	5										
Parts omitted	5										
Parts added	2										
TOTAL SCORE											

Scored by ....

Figure 21. A Score Card for the Measurement of Handwriting. The score card indicates the items which should be considered in scoring the quality of handwriting and the total amount of credit for superior achievement in each item. These values were determined through the pooling of judgments of handwriting specialists. For more details concerning the development and use of this score card, see C. Truman Gray. 'A Score Card for the Measurement of Handwriting', *Bulletin of the University of Texas*, No. 37, 1 July 1915, p. 45.

CHAPTER X

TEACHING HANDWRITING TO CHILDREN

In the task of teaching all children of school age to write, handwriting programmes are needed which are adequate in scope and well adjusted to the maturity levels, abilities, present interests and developmental needs of the pupils taught. The problems encountered in providing such programmes vary widely according to the school. In schools which are just being organized programmes must be designed that are sound in principle and well adapted to local needs and conditions. In schools already established, existing programmes should be reviewed critically and revised in the light of tested experience and research. As a possible aid in such activities, this chapter[1] describes the purposes, scope, organization and teaching procedures that harmonize with the basic facts and principles presented in Chapter IX.

CURRENT ROLE OF HANDWRITING

A first requisite in designing a sound programme for use in primary schools is a clear understanding of the role of handwriting in child life. Reports show that it can serve many purposes in the out-of-school lives of children. For example, they write their names on prized possessions; they use handwriting in various indoor and outdoor games; they give titles to the pictures they draw; they prepare invitations to parties; they write letters to friends and relatives. Experience shows that when the teaching of handwriting is based, in part at least, on such interests and felt needs children engage eagerly in assigned writing activities and apply themselves vigorously in learning to write.

Handwriting is now used more or less regularly throughout the school day as an aid in many learning activities. For example, children write the new words which appear in their reading lessons; they make simple records of the things they learn through observation, class discussion and reading; and they use handwriting regularly in doing school exercises or homework. To ensure a satisfactory quality of handwriting in these various activities, almost continuous guidance is needed. By the end of the primary school period definite progress should have been made in achieving a good quality of handwriting in both the self-initiated and the required writing activities in which children engage.

Handwriting is also a very valuable means of self-expression. Consequently, children in all types of communities are now encouraged daily to write down their ideas and reflections on matters of vital interest to them. At this level handwriting

1. In preparing this chapter wide use was made of the facts, principles and recommendations included in the 15 references that appear on pages 188-9, Chapter IX.

is far more than a skill; it is an essential aid to expression. It follows that it should be so taught that it becomes 'a smoothly working and efficient means of expressing thought'.[1]

The nature and extent of writing activities vary widely in different schools. This is due to differences in the cultural level of communities, in the size of the school programmes, and in the preparation and vision of the teachers. In many schools, unfortunately, most of the writing done during early school years is with the sole object of improving the quality of handwriting.

The need is urgent, therefore, in most communities for careful studies of those writing activities which should be encouraged, so as to show the various purposes served by handwriting in the daily lives of young children; the uses that should be made of it in various school activities as an aid to learning; and the opportunities it provides for independent thinking and self-expression. On the basis of the facts obtained, a programme should be devised in which handwriting is used to achieve many purposes of real interest to children, thus bringing them to recognize the value of handwriting and apply themselves to acquiring needed skills.

SCOPE AND ORGANIZATION OF THE PROGRAMME

The foregoing discussion suggests two basic objects of a handwriting programme: it should stimulate rapid progress in the ability to write clearly, legibly and with reasonable speed, and this should be achieved through purposeful activities that elicit whole-hearted co-operation and effort. Furthermore, various uses of handwriting should be encouraged until as high a quality has been reached in all writing activities as can reasonably be expected of each child.

As pointed out above, the training should always be adapted to the children's level of maturity, capabilities, and actual interests and needs. It should also anticipate future needs and prepare for them. In efforts to develop handwriting programmes along these lines much has been learned that may be of service in current planning.

Owing to the fact that many children are not prepared when they enter school to acquire the technique of handwriting easily, they must receive special training.[2] Most young children are not able, at the outset, to grasp the complex forms of handwriting usually employed by adults. To overcome this difficulty, simplified forms of handwriting are now widely used during the first two years or more of the primary school period. Mastery of the more complex forms of handwriting prescribed by social usage is achieved later, after pupils have acquired increased motor control. Handwriting programmes should be thus organized in three stages: Stage One: Preparation for handwriting; Stage Two: Learning to write; Stage Three: Mastering a mature style of handwriting.

Most of the evidence in support of these stages was obtained largely from countries that have alphabetic languages and use Roman letters. Enough additional evidence comes, however, from other countries to justify the belief that they are equally valid everywhere. An analysis of current handwriting programmes shows that efforts are being made to achieve the purposes of Stage Three wherever primary schools exist.

1. Freeman, Frank N. *Teaching Handwriting.* Washington, D.C., Department of Classroom Teachers and American Educational Research Association of the National Education Association, 1954, p. 3. (*What Research says to Teachers*, 4.)
2. Cruz González, Adrián and Moya, Bolívar. 'Instrucciones para enseñanza de la lectura y la escritura por el método global', *Carta Circular, no. 1* [de la Misión de asistencia técnica de la Unesco]. San José, Costa Rica (1954), 7 leaves processed.

Similarly, the need for the preparatory training proposed for Stage One is widely recognized in practically all countries. Stage Two presents real problems. Whereas the difficulties young children find in mastering complex forms of handwriting are universally recognized, it is difficult to develop simplified forms for use in most languages which now employ very complex characters. In the sections that follow attention will be drawn to types of adjustment that are being made in such cases to simplify the process of learning to write.

STAGE ONE: PREPARATION FOR HANDWRITING

The chief purpose of Stage One is to stimulate keen interest among children in learning to write and prepare them to acquire the requisite technique with reasonable ease. These preparatory activities should take place as far as possible during the pre-reading period, in order that early training in handwriting and reading may begin at about the same time. In the case of children who enter school at a more advanced age than is usual, such activities may be pursued in conjunction with initial instruction in writing.

Many years ago, Maria Montessori,[1] as a result of much experimental work with young children, declared that learning to write requires both intelligence and an efficient motor mechanism. The latter, according to her, involves both ability to hold the writing tool and ability to perform the movements required. A child acquires mental readiness through experiences that reveal the value of handwriting and promote interest in learning to write. He acquires motor readiness through activities that enable him to learn to hold the writing tools and to engage in the simplest writing movements.

PRE-SCHOOL ACTIVITIES THAT PREPARE FOR HANDWRITING

Some of the experiences that prepare for handwriting are acquired incidentally during pre-school years as children play and engage in various activities at home. As a rule, the child who plays with other children and does things continually with his hands develops types of motor control and ability to discriminate visually that are needed for initial writing activities. Moreover, if he is reared in a home where writing is carried on regularly he comes to school more or less familiar with the nature of the writing act and with some of its uses. He may even have acquired a keen interest in learning to write. In the case of the child who comes from a home where little or no writing is done, his preparation for learning to write is largely sensory and motor. Due to wide differences in rate of development, children from each type of home vary significantly in their readiness for writing when they enter school.

Teachers should always examine children's readiness for handwriting, noting carefully the extent of each child's motor control and visual ability as he engages in regular classroom activities. Through conversations with pupils concerning 'what we want to do in school', a teacher can find out the extent to which they are eager to learn to write. In the course of these observations and discussions, he should observe individual differences and decide upon the probable types of stimulus and training needed in each case.

1. Montessori, Maria. *Pédagogie scientifique; la découverte de l'enfant.* [Paris] Desclée de Brouwer [1952] p. 158.

TYPE OF PREPARATION PROVIDED IN SCHOOL

The practices that are most effective in promoting readiness for writing[1] have been studied in several countries. Space permits specific reference to only a few of them. According to Freinet[2] readiness to learn to write should be acquired as a part of the 'natural' process of child development. The initial experiences of children in the schools which he directs are, therefore, very informal and varied and in harmony with their immediate interests. Steps are, however, taken to develop them in desired directions. As a result of the procedures described in Chapter IX, the child begins to express himself through drawings, and this develops the required motor control. Sooner or later, motives for learning to write are acquired, and models are provided which can be copied. Gabrielli[3] states that many of the methods now used in Italy, while conforming to the so-called 'natural' method, are based on the belief that drawing and preparatory writing should not only be done spontaneously but also from memory of models.

In Germany, a procedure[4] called 'Sprechspur' has achieved a certain popularity. While the teacher reads a sentence from the blackboard the spoken words are accompanied by rhythmic hand movements which are imitated by the pupils. These movements correspond in detail to the inflexions of the voice. The chief purpose is not to reproduce the letters or the mouth movement; it is rather to establish as close an equivalence as possible between the sensations of the sound produced and the sensation of motion. It is claimed that the child is thus helped in grasping the structure of language and writing, the concepts represented by written words and phrases, and in discovering corresponding graphic signs. In addition he gains a clear notion of how letters function in the writing act, and is thereby able to make progress in writing and reading.

Modern infant schools and kindergartens rely largely on informal and highly motivated activities of various kinds for promoting writing readiness. Through the use of games, building with blocks, modelling and drawing, motor control is developed. As these activities proceed, other useful types of experience are provided. For example, the teacher may write the names of the pupils on their desks, books or other belongings, or he may write labels on boxes containing different materials, or the name of the day of the week on the blackboard each morning, together with a list of important things to be done. At times he may also write a letter to a sick pupil, the members of the class dictating the message.

Through many types of experience similar to those just described, children become interested in seeing their thoughts recorded in written form. They also receive visual impressions of the direction and sequence of strokes in writing. They thus learn, more or less unconsciously, such matters as correct form, proper arrangement and even the use of punctuation marks. It is very important that children should be both mentally and physically prepared before undertaking what is for them a new and difficult task.

Specific values attaching to different kinds of motor exercises are suggested by the following summary of practices in Geneva, Switzerland: 'exercises in cutting

1. Cruz González and Moya, op. cit.
2. Freinet, C. *Méthode naturelle de lecture.* Cannes (Alpes Mar.), Editions de l'Ecole Moderne Française, 1947, 49 p., illus. (*Brochures d'éducation nouvelle populaire,* no. 30, Mai 1947.)
3. Gabrielli, Giorgio, in his preface to Agazzi, Aldo. *L'apprendimento del leggere e delle scrivere (fondamenti e didattica del 'metodo naturale').* 4a. ed. accresciuta, con una appendice sull'insegnamento della lingua italiana. Brescia, 'La Scuola' Editrice, 1951, p. 17.
4. Moers, Martha. 'Die Kindertümlichkeit der Sprechspur', *Psychologische Rundschau.* Reprint from Vol. 3, No. 1, 1952, *Handbuch der Sprechspur.* Fritz Hoke, Bochum, Verlag Ferdinand Kamp.

and in pasting (lightness, precision and taste); modelling (flexibility and careful fingering); painting and drawing (lightness, precision, good taste); sensory exercises of touch, sight (observation of forms), and muscular exercises for the fingers, wrist and forearm (flexibility, posture).'[1] In addition, many schools make use of activities suggested by the Montessori method, which are more closely akin to the movements in handwriting. They include 'tracing letters in sand'[2] and 'outlining letter forms by touching with fingers, chalk or pencil'. Some countries, such as Chile, provide copper plates on which are imprints of letters, numbers and pictures which the children can trace. This procedure involves the use of both sight and touch in establishing a feeling for the writing movement.

Reports from India[3], where complex characters are used in writing, describe the following types of preparatory exercises adopted, particularly in Bombay: '(1) drawing straight lines, slanting and curved lines, semi-circles, etc.; (2) drawing letters in sand or in sawdust, (3) forming letters with a wire, small thin sticks, seeds, etc.; (4) children stick sand on letters drawn by the teacher on cardboard; (5) children rub the slate pencil on the slate and thus prepare a fine white surface on which they are asked to draw the letters with their fingers; (6) drawing letters in the air with a finger.'

DURATION OF THE TRAINING

The foregoing examples indicate that many types of training and experience are used today in preparing children to learn to write with reasonable ease. They vary from activities that are only remotely connected with handwriting down to those which have been favoured in the past during the initial stages of learning to write. As yet research has not determined their relative merits. Some of them can be criticized on the ground that their use is based on the belief that the elements of letters need to be mastered in the first place.

It may be safely assumed that the less highly specialized forms of training are preferable at the beginning. They should be continued until the child expresses keen interest in learning to write and has attained sufficient motor control to hold the writing tools and engage in the larger movements required. If, for practical reasons it becomes necessary to begin the teaching of handwriting before some pupils are fully ready for it, preparatory training should be continued on a parallel basis.

STAGE TWO: LEARNING TO WRITE

Stage Two provides initial training in learning to write. It begins as soon as pupils have acquired sufficient motor control to learn simple forms of handwriting, but not enough to master highly complex ones. Because the forms and styles of handwriting used in different parts of the world vary considerably, a number of problems arise. These will be discussed under six headings: aims to be achieved; relation of basic training to other school activities; tools and equipment; teaching procedures; diagnosing and correcting difficulties and guidance in the use of writing.

1. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., pp. 15-16.
2. Jowitt, Harold. *Suggested Methods for the African Schools*. Longmans, Green and Company, London, 1951, pp. 213-14.
3. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., p. 84.

AIMS TO BE ACHIEVED

The chief purpose of the training given during Stage Two is to develop the basic skill required for simple writing activities. A more detailed statement of specific aims is given below:

To deepen interest in learning to write.

To stimulate awareness of an increasing number of situations in which handwriting helps in achieving desired ends.

To promote the orderly development of the requisite attitudes and skills.

To help pupils to overcome difficulties in learning to write by studying carefully the nature and causes of their difficulties and by providing appropriate assistance in each case.

To encourage pupils in the use of writing for meeting personal needs, as an aid to learning, and as a means of self-expression.

To prepare pupils for more advanced stages of development in the use of handwriting.

As a rule, these aims are largely achieved during the first two school years.

RELATION OF BASIC TRAINING

In planning a handwriting programme the relation of the basic training given to other school activities merits careful study. A survey of correct practices reveals at least four possible types of programme. In the first, all the basic training is provided during periods reserved specifically for that purpose and aims primarily to promote skill in handwriting as quickly and effectively as possible. Little or no attention is paid to the uses it may serve in the child's daily life or to its connexion with other language arts and school activities. The materials used are usually prepared by handwriting specialists and are designed to ensure orderly progress from simple to more complex writing forms. Valuable as such training may be in some respects, it violates certain principles of sound learning emphasized in Chapter IX and fails to cultivate all of the attitudes and skills essential during Stage Two.

A second type of basic training is closely integrated[1] with the teaching of reading and is based largely on the materials provided in primers. According to its advocates, it has the following advantages: economy of instructional materials; a definite sequence of writing activities which most teachers can easily direct; and close co-ordination between reading, writing and spelling, practice in one also promoting development in the others.[2] This plan has been vigorously criticized for several reasons: it provides little incentive for practice; if synthetic methods are used, attention is focused on the elements of words before pupils recognize their significance either through reading or writing; it develops the attitude that writing consists primarily of copying models rather than expressing ideas; and it often neglects many contributions that writing might make to pupil development in other parts of the curriculum.

A third type of training is conceived as an essential part of a closely integrated instructional programme. An example is given in Chapter V, pages 91-3. This

1. For a statement of the advantages and disadvantages of this plan see: Gudschinsky, Sarah, *Handbook of Literacy*. Norman, Okla., Summer Institute of Linguistics. University of Oklahoma, 1953, pp. 23-4.
2. Some of the experimental data do not support this view, see: Clemente, Tito. 'Should Writing be taught Simultaneously with Reading in the First Grade', *Primary Education*, Vol. II, December 1937, pp. 466-72.

type is favoured on several grounds: practice in writing is based on the use of concrete experiences; specific motives for writing are provided which elicit whole-hearted effort; learning to write is closely related to most school activities, including the other language arts; the steps taken in learning to write are well adjusted to the child's stage of development; and some freedom is permitted in the style of writing adopted by each pupil. It has not been widely followed because of the prevailing assumption that it can be used only by well trained teachers.

A fourth type of training is given as part of a combined language arts programme. A special period is reserved each day for activities that develop the various language arts—listening, speaking, reading, writing, spelling and written expression. In many cases time is set aside daily for special emphasis on each of the language arts. In other cases, the language arts period is divided into two parts; one for daily instruction in reading; the other for emphasis on the other language arts. In the latter case the training is either provided separately for each of the arts, or else in units laying emphasis on each of them daily as the need arises. The aptitudes thus developed are applied during all periods of the school day in which handwriting serves a useful purpose.

Because of its many merits the system just described has been followed more and more during recent years. It recognizes the various values and relationships of handwriting and makes use of sound principles of learning. It provides for specific and highly motivated training in the basic skills of handwriting. As in the case of the integrated instructional programme, this system is often criticized on the grounds that teachers do not have the time and are often not prepared to plan and direct the necessary handwriting activities. To help overcome these difficulties many schools are preparing bulletins on the subject. In addition, authors and publishers are providing sets of exercises for promoting parallel and co-ordinated growth in all the language arts. Special efforts are also being made to provide motives for writing that are so compelling that 'the child will work up to the hilt of his capacity.'[1]

STYLE OF WRITING

No matter what pattern of basic training is followed, the style of handwriting used is of supreme importance. As shown in Chapter IX, many of the styles of handwriting used in adult life are too complex for young children. If ability to write is to be readily acquired, so that it can be used during early school years, simplified styles of handwriting are essential. We now draw attention (a) to plans that have been adopted by many countries to meet this need, and (b) to the problems faced by other countries which still use complex styles of handwriting in teaching young children to write.

Use of Script Writing

Reports show that many countries which use Roman letters are now adopting a simplified form of handwriting, called script, during early school years. The chief reasons given for this are that script is simpler and easier to learn than cursive writing and is better adapted to the child's capacity for motor control. These claims are amply supported by the evidence summarized in Chapter IX.

Whereas the various styles of script writing in use, including 'print-script' and

1. Elliot, A. V. P., and Currey, P. *Language Teaching in African Schools*, London, Longmans, Green and Co. Ltd., 1949, p. 61.

'manuscript', differ in many details they are all similar in that they resemble print more or less closely. The script letters that are different are composed wholly or in part of straight lines (1,D), circles (o,g), and parts of circles (c,d). In order to simplify space relations for beginners, several authors of bulletins on script writing suggest that the capital and tall letters should be made twice as high as the small letters. One exception to this rule is the letter *t*, which should be somewhat shorter than the other ascending letters. The descending letters, such as *g*, bear the same relation to the letter *n*, as do the ascending letters. As pupils acquire experience in writing script, the ascending and descending letters can be shortened slightly so that the written lines do not interfere with each other.

The form of unlinked Roman letters used differs to some extent in different countries and also within the same country. In a recent survey of handwriting in the State of Wisconsin[1] an analysis was made of the forms of the letters in five different commercial systems of manuscript writing current throughout the State. Figure 22 shows the variety of capital forms used. As indicated by the forms for each letter, there was complete agreement in the case of only one letter, namely *P*. For the remaining 25 letters, there are two to four different forms. Figure 23 shows the variety of small letter forms. There was complete agreement in the case of three letters—*e*, *i* and *o*. Most of the variations are minor ones. No objective evidence is available concerning their relative merits.

As indicated by the arrows in Figures 22 and 23, certain principles are followed in forming the different parts of letters: vertical and slanting lines are made with a down-stroke; part circles start at the top and move either to the right or to the left; the letter *o* is made counter-clockwise; horizontal lines begin at the left. Each part of a letter is formed as the pupil comes to it, while moving from left to right across the page or on the blackboard. The letters of a word should not touch each other. Those composed of circles should be spaced close together; those composed of circular and vertical lines should be farther apart; vertical letters should be farthest apart. Words may well be one finger space apart on paper and the width of an eraser on the blackboard.

Although the use of script was vigorously opposed at first, its use has spread rapidly during recent years. This is due largely to the fact that it can be learned more easily and written more legibly and rapidly. It is, therefore, of considerable use during the greater part of the first two school years. Because of its proved advantages, all countries which use Roman letters, but which have not yet adopted the use of script during the first two years, should seriously consider the wisdom of doing so.

Problems Encountered where Complex Styles of Writing are Used

Teachers in practically all countries have long recognized the difficulty which young children find in learning to write because of complex characters. In China, for example, where logographs are used, efforts have been made for centuries to simplify the learning process by beginning with those characters which have the fewest strokes. Though this procedure was found helpful, it left many of the difficulties unsolved. For example, it was still necessary to devote long periods to arduous practice on individual characters before actual writing was possible. For this reason amongst others, efforts are now being made to develop a new form of written lan-

1. Wisconsin, Department of Education. Committee for Research in Handwriting. *Handwriting in Wisconsin: A Survey of Elementary School Practice*, Madison, Wisconsin, University of Wisconsin, 1951. (Bulletin of the School of Education).

guage[1] for China, adapted to its culture and needs, and which children and adults can learn to read and write with reasonable ease. Similar problems have to be faced in Japan, and there have been many efforts by individuals and committees to find solutions for them. Thus far not a great deal of progress has been made.

In most other countries using complex forms of writing, various steps have been taken to simplify the process of learning to write. The most common one is to teach the elements of letters first, namely straight lines and curves. As soon as they have been learned they are combined to form letters, and these in turn to form words. As previously pointed out, the use of purely synthetic methods of teaching handwriting has several drawbacks. A much more promising effort to find a solution is being made in some countries through modifications in the style of writing. For example, in Assam, an upright style with joined letters is being recommended for use in primary schools as compared with a slanting style in the higher grades. 'In Bombay, print script (*deo Magari*) is now more favoured than the cursive (*modi*) style.'[2]

Until simplified forms of handwriting can be developed, many countries will have to go on using a complex style for teaching young children to write, Every effort should, therefore, be made to simplify the process.[3] Practice should be provided in situations which carry meaning for pupils, provide strong motives, and make demands on them.

MATERIALS AND POSITION

The writing tools and materials used also merit careful study. In many countries the pupils do their first writing on the blackboard[4] with soft chalk, which young children can learn to handle easily. The writing is at the level of the child's eyes. Very soon, however, children begin to write at their desks on paper. For this, large-sized lead pencils of good length and with soft lead are preferable. For health reasons, slates are not used as much now as formerly and are actually forbidden in some places.

The use of pen and ink during early school years is questionable. In the past, they have been extensively used in the second school year, and often in the first, particularly in schools using cursive styles of handwriting. It has been argued that they are essential in achieving quality and beauty in handwriting. But this is to place undue emphasis at the beginning on the desired end. The tendency in schools which use simplified forms of handwriting at the beginning is to postpone the use of pen and ink until cursive styles of writing are introduced. In China, brushes are used in learning to write the characters and also in the practice of calligraphy. After pupils begin to use writing in various school activities, pencils and pens gradually take the place of brushes.

Children should be made to adopt a good posture in writing. When at the blackboard, they should stand squarely on both feet, directly in front of the part of the board on which they are writing, and well back from it. When at their desks, they should sit comfortably back in their seats in an erect position, with both feet resting on the floor and their bodies leaning slightly forward from the hips, but not

1. Chuch, Wei. 'The Problem of Reforming the Chinese Written Language', *Peoples' China*, 10, 1954, pp. 18-26.
2. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., p. 84.
3. Sweden, Kungl. Skolöverstyrelsen. *Betänkdemed förslag till undervisningsplan för rikets folkskolor* (Proposals of the Swedish Board of Education for primary school curriculum). Stockholm, Svenska, Bokförlaget. Norstedt, 1953, pp. 111-17.
4. Gudschinsky, op. cit., p. 25.

touching the desk Both arms should rest on the desk, with the elbows extending slightly beyond the edge.

In the case of the right-handed child, the paper is held with the left hand which moves it upwards as the writing of the successive lines moves downward on the page. In the case of the left-handed child, the paper is controlled with the right hand. When a slanted style of handwriting is used, the paper is placed at a slight angle on the desk. For the right-handed child the paper slants to the left at the top; for the left-handed child it slants to the right.

TEACHING PROCEDURES

The most effective steps in teaching vary in many respects with the kind of characters used and with prescribed styles of handwriting. Experience shows, however, that certain general principles can be applied.

1. Pupils should become well acquainted with written forms and their uses before practice in handwriting begins. This is achieved in many schools through the teacher writing on the blackboard the day of the week, the names of pupils, a list of the things to be done that day, or a brief account of some interesting experience. Progress in becoming acquainted with correct forms is more rapid if the teacher writes clearly, legibly, and in the style in which the pupils are to learn to write.
2. The act of writing should begin in a situation which has meaning and purpose for the child. The item to be written may be his name, a label for a picture, the day of the week. As a compelling motive for writing develops, the teacher places on the blackboard a clear copy of what is to be written. Such steps not only give meaning to the writing act, but provide the perceptual experiences that are necessary before any attempt to write can be successful. This is true even in the case of schools which lay great stress at an early stage on the mastery of the so-called elements of handwriting.
3. At first, too much should not be demanded of the pupils in reproducing the models on the blackboard. Thus, many teachers allow them to copy the models with little, if any, help. They believe that the pleasure in satisfying a felt need in a new way is of far greater importance than the quality of the product. The result is that the characters, letters or words are perceived and reproduced largely through the child's own efforts, and often quite inaccurately. Through continued practice, more and more details are observed, and the written forms become more accurate and regular. By due emphasis on correct spelling, attention is gradually focused on all details of words and letters.
4. Informal writing activities which are highly motivated should be supplemented early on by special practice periods of short duration. The purpose of these is to inculcate the basic skills[1] required in handwriting. In this connexion, two things need to be kept clearly in mind: pupils who advance slowly in the perception and mastery of the details of words and letters should not be forced to progress more rapidly than their stage of development justifies, and due consideration should be given to individual differences in attempting to acquire the prescribed style of handwriting.
5. Two principles underlie the selection of the materials to be used in practice exercises: by their very nature they should focus attention on those items which call for improvement and they should have a meaning for the child. An experien-

1. Gudschinsky, op. cit., p. 23.

ced teacher is often able to select appropriate practice materials from the informal writing activities described above. A distinct advantage of using such material is that vivid meanings are already associated with it, and motives for improvement can readily be developed. Many inexperienced teachers are unable to select appropriate practice material. In such cases a set of practice exercises devised by specialists in the style of handwriting used has distinct value. Each exercise, however, should be preceded by a discussion in which its meaning and the motives for engaging in it are explained.

6. A clear perception of the words and letters to be reproduced in writing is essential. As a rule, vivid impressions through various sense avenues are desirable. Let us assume that the form of a new letter is to be mastered. The pupils proceed to (a) trace a model of the letter with a forefinger, naming the letter as they do so; (b) trace the letter several times, first with the finger and then with a pencil; (c) cover the letter and write it once on paper; (d) compare the letter with the model. If correct, they then write it several more times to ensure mastery. If incorrect, they trace it a few more times before writing it again independently. This general procedure may be applied in many ways for helping children to remember and learn to write letters or words accurately, and to overcome specific difficulties.
7. In order to attain the level of mastery desired, specific features of handwriting must be regularly repeated. This can be done, in part, during special practice periods. But maximum results will not be achieved until the new skills are used daily in various purposeful writing activities.

We have drawn attention to certain guiding principles which underlie the teaching of handwriting in most parts of the world. The step-by-step procedures in learning to write are far too detailed to be considered here. Teachers are therefore, advised to procure themselves copies of the best guides available relating to the particular styles of handwriting they have to teach. Those who have not previously taught script writing should study recommendations for teaching it. Bulletins[1] on this subject published recently by various agencies, which discuss in detail the procedures which have proved most effective, will also be found of great value. Those prepared by Ministries and Departments of Education[2] in various countries merit special attention.

DIAGNOSING DEFICIENCIES AND PROVIDING CORRECTIVE EXERCISES

As children make progress in learning to write, teachers should note daily the nature of their individual difficulties, and should help each child according to his needs, after a careful study of his stage of general development, motor control, mental age, physical defects, background of experience, and home environment. It is particularly

1. Swan, Agnes. *We Learn to Write. Manuscript Writing.* Detroit, Board of Education of the City of Detroit, 1951. 'Book One. Teachers' Guide'.
   Richardson, Marion. *Writing and Writing Patterns.* London, University of London Press, Ltd., 1948, 5 vols.
   Douet, Kathleen. *Script and Writing Patterns for African Schools.* London, University of London Press, Ltd., 1949, 2 vols.
   Madison Public Schools, Handwriting Committee. *Manuscript Writing in the Primary Grades.* Madison, Wisconsin, Curriculum Department, 1951, 32 p.
2. Philippines. Department of Education. Bureau of Public Schools. *The Use of Manuscript Writing (print-script) in Grades I and II.* Manila, 14 July 1951, 3 p. mimeo. (Bulletin No. 16, s. 1951.)
   —. *Tentative Guide in Teaching Manuscript Writing.* Manila, 1951, 10 p. (Enclosure to Bulletin No. 16, s. 1951.)

important that a child should not be required to reproduce exactly the prescribed style of handwriting if it presents unusual difficulties for him.

As a guide in the diagnosis of pupil's difficulties, the following qualities should be studied in the order listed: legibility, letter formation, spacing, and slant if a cursive style is used. By comparing samples of the writing of individual pupils with the adopted forms, specific deficiencies can be readily identified in the case of those who are not making satisfactory progress. Corrective training is usually not effective unless a pupil recognizes his deficiencies and is eager to be helped. It is therefore advisable to encourage pupils to keep a folder of samples of their 'best' writing and to study the improvement made from time to time. They then become keenly interested in the quality of their handwriting, begin to note their own deficiencies, and gladly accept help.

ENCOURAGING PUPILS IN THE USE OF HANDWRITING

As soon as pupils have acquired even a small amount of skill, they should be encouraged to write whenever this serves a useful purpose. Indeed, the motive for much of the practice necessary in learning to write well should spring from a real need for recording or expressing ideas. The teacher should, therefore, encourage pupils to say in writing whatever they can with the words they know. Some pupils may wish to label pictures or to write a simple message; others may wish to tell in writing the part of a story they liked best. As a result of a class discussion, interesting facts may emerge which the pupils wish to record in their notebooks. Befcre they attempt to do so, they and the teacher should discuss the actual points to be recorded, the new words that are needed, and other pertinent matters. Very often the teacher will have to supply models for a few words which the pupils have not yet learned.

Many of the uses which young children make of writing require a knowledge of correct forms and procedures. The writing of a letter to a sick classmate is a good example. As a first step, the teacher should list the things which the pupils need to know: how and where to date the letter; how to address the person to whom the letter is written; how to close the letter, and how to address an envelope. A correct model is provided by the teacher writing on the blackboard the message which the pupils wish to send. Only as pupils acquire such information and the necessary technical skill will they be able to satisfy the urge to write a letter. The teacher should also propose other uses of writing which are normal for children at this age level. By this means their efforts at mastering handwriting will receive the appropriate stimulus.

Finally, writing as a means of self-expression should be encouraged during Stage Two. Pupils should be urged to relate, both orally and in writing, stories and accounts of personal experiences. A desire to write stories may be stimulated through the reading and enjoyment of a story during a reading period. In response to a suggestion from the teacher, pupils may prepare a brief summary of the story. It should be done with the teacher's help and written on the blackboard. Later it should be copied down by the pupils. After a few such exercises, individual children may attempt to write brief accounts of stories which they have read independently. The next step is for them to write stories of their own invention. Similar procedures may be used in encouraging children to engage in other types of creative writing based on their own interests.

STAGE THREE: MASTERING A MATURE STYLE OF HANDWRITING

The problems in Stage Three centre round the needs of two groups of pupils. The first includes those who learned to write during Stage Two through the use of script, or some other simplified style of handwriting, and are now ready to begin the use of a more complex style. The second includes those who learned to write through the use of a cursive style, or some other complex form, and are now sufficiently advanced to justify a special effort being made to improve both the quality and speed of their handwriting. This stage begins, as a rule, early in the third school year, and continues throughout the remainder of the primary school period, and far beyond.

AIMS TO BE ACHIEVED

The chief purpose of teaching handwriting during Stage Three is to help pupils to acquire the adult style of handwriting in common use around them. Other aims that merit special emphasis are:

To cultivate a growing interest and pride in achieving a good quality of handwriting.

To develop the attitudes and skills required for writing clearly, legibly and with reasonable speed.

To discover the reasons for individual failure to make satisfactory progress in handwriting, and to apply the necessary correctives.

To encourage pupils in the various uses of handwriting.

Whereas the main purposes of teaching handwriting are essentially the same everywhere during Stage Three, the initial instructions given vary considerably among groups. This is because the training provided during Stage Two differs both in kind and amount. Schools which make use of a cursive or other complex style of handwriting will begin at the level of competence reached at the end of Stage Two. Because of the greater physical maturity of the pupils the training can now be more vigorous, with greater insistence on the attainment of a satisfactory quality of handwriting. Since the need for writing increases rapidly during the third and fourth school years, the speed at which pupils write clearly and legibly assumes greater importance than hitherto. On the other hand, schools which use a script or other simplified style of handwriting during Stage Two are now faced with the necessity of selecting a cursive style and of making the transfer from script to cursive writing. As pointed out in Chapter IX, some authorities favour the continued use of script throughout later school years. However, until the evidence is more convincing and the plan meets with wider social approval, it seems advisable to transfer from a script to a cursive style at the beginning of Stage Three.

THE CHOICE OF A CURSIVE STYLE

The countries which have adopted a cursive style of handwriting may be classified in three groups: '(a) those advocating an upright style; (b) those favouring slanting writing derived from script; and (c) those inclining towards a filiform style'.[1] The filiform style is a rounded, slanted writing 'whose down-strokes and loops are so formed as to promote facility of execution'. According to the results of scientific studies, a style of writing with a moderate forward slant is desirable. This involves a 'sideward movement of the hand made by rotating the forearm', which is easiest

1. International Conference on Public Education, XIth. *The Teaching of Handwriting*, op. cit., p. 19.

and most rapid with up- and down-strokes. Most of the decorative features that characterized many former styles of handwriting are eliminated. This results in the development of increased speed, which is essential in meeting the greater demand for writing as a child matures. Unfortunately, however, research does not yet provide a final answer to the question: which system of writing that conforms to the foregoing principles is the best?

Many countries, after carefully studying the merits of various cursive styles, prescribe a specific style for general use. In such cases commercially standardized materials, or other guides which serve the same purpose, are usually adopted. In other countries the different administrative areas are permitted to select the style which they will use. In still other countries, each community is free to choose the style to be used. Often Ministries of Education issue bulletins on handwriting as a guide to teachers in making decisions and in providing adequate training.

THE TRANSFER FROM SCRIPT TO CURSIVE WRITING

In order to enable pupils to continue to use handwriting during the period of transition, many teachers permit the use of script until the elements of cursive writing have been mastered. Pupils are also encouraged to go on with it whenever it serves a useful purpose, such as in writing labels and signs, captions for pictures, and in filling out forms. A distinct advantage of this plan is that the ability to write script is thus maintained and can be used readily throughout life as occasion demands.

Before taking up cursive writing, pupils should have frequent opportunities of becoming familiar with it. The same material can be written on the blackboard in both script and cursive styles, and the similarities and differences between them noted. Practice can also be given in reading instructions, notices, etc. written in cursive style. In addition, the following methods are widely followed in effecting the transfer:

1. The pupils face their desks squarely, as in script writing, with both elbows supported but extending slightly below the edge of the writing surface.
2. The 'traction principle' is observed. The muscular movement is aided because it reduces the contraction of the fingers on the pencil or pen, as occurs in pressure writing; requires less effort, and is therefore less tiring.
3. A moderate amount of movement of the fingers is permissible, supplementing the larger arm and hand movements.
4. Special periods are reserved for guided practice to supplement the incidental guidance in handwriting given during all school activities in which writing is used. As a rule, recommended practice materials are used during such periods. To an increasing extent, however, supplementary types of training are provided, based on the specific difficulties encountered by pupils.
5. The amount of time devoted to special practice periods varies according to the needs of groups and of the individuals in a class.
6. During both special practice periods and all other handwriting activities, pupils are encouraged to criticize their own writing, analyse the mistakes they make, and set about correcting them.
7. The aim is not strict conformity to a specific style of handwriting. It is rather to develop a good quality in the selected style, but with such variations as may result from personal capabilities and temperament. According to Dal Piaz,[1] the

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1. Dal Piaz, Riccardo. *La scrit ura nella scuola elementare.* Terza edizione aggiornata. Torino, G. B. Paravia & C., 1950, p. 8.

desirable characteristics of personal handwriting are that it should be simple, clear, legible and attractive. These must be attained even at the sacrifice of much time and effort.

The above methods apply generally, wherever cursive forms of handwriting are used. For information on more detailed problems in connexion with teaching specific styles of cursive writing, we refer the reader to manuals issued by various authors of such styles and to reports on the teaching of cursive handwriting prepared by specialists in different countries. We give some examples.[1]

ASPECTS OF HANDWRITING WHICH MERIT MOST EMPHASIS

As effort to improve the quality of handwriting continues during Stage Three, special emphasis should be laid on those items which directly influence its legibility. This is true for no matter what form of written language or style of handwriting. Teachers have to a large extent been guided in the past by the recommendations of specialists in the specific styles used. During recent years, much research has taken place, the results of which are strongly influencing the type of guidance now offered. We refer briefly in the following paragraphs to two examples of such studies.

In the first example,[2] an effort was made to determine the relative importance of five basic aspects of cursive handwriting: letter formation, spacing, alignment, regularity of slant, and quality of line or stroke. Eye movement records were obtained as adult subjects read samples of writing which differed widely in respect of each of these factors. The results showed that all factors are involved and must be recognized in teaching handwriting. However, good letter formation was seen to rank highest in determining legibility. Uniformity of slant and fairly compact patterns of writing ranked next in order. The evidence was not conclusive concerning the need for evenness of alignment and quality of line or stroke. Such a study indicates where special emphasis should be laid in teaching in order to develop clear, legible handwriting. Studies are also needed to show where extra emphasis is wanted so as to ensure an attractive style of handwriting.

A second study[3] aimed at finding out the chief errors in letter formation which make handwriting illegible. An analysis was made by 24 different persons of over a million letters included in samples of handwriting from more than 2,300 children, young people and adults. The study disclosed the following percentages of errors by grade school children: failure to close letters, as in *a* and *o*, 24 per cent.; top loops closed (*l* like *t* or *e* like *i*), 13; looping non-looped letters (*i* like *e*), 12; using straight-up

1. Australian Council for Educational Research. *Handwriting*. Sydney, March 1950, 30 p. processed. (*Curriculum Survey Report*, No. 6.)
   Dottrens, Robert. *L'enseignement de l'écriture : nouvelles méthodes*. Neuchâtel, Editions Delachaux & Niestlé S.A., 1931, 148 p. (*Actualités pédagogiques et psychologiques.*)
   Eigenmann, Karl. *Das Schreiben. Wegleitung fur den Unterricht*. Herzogenbuchsee, Verlag Ernst Ingold & Co., 1949, 32 p.
   Engelbret-Pedersen, P. and Rolver, Johannes. *Praktik handbog for unge laere*. 2. Udg. Kobenhavn, Gyldendal, 1951, 170 p.
   Freeman, Frank N. *Teaching Handwriting*, op. cit.,
   Lammel, Arnold. *Elemente des Schreibens*. Iserlohn, Brause & Co., (1951?), 95 p.
   Wenz, Gustav and Pfizenmayer, Otto. *Der Weg zum selbständigen Schreiben*. Stuttgart, Loewes Verlag Ferdinand Carl, 1950, 96 p.
2. Quant, Leslie. 'Factors Affecting the Legibility of Handwriting', *Journal of Experimental Education*, Vol. XIV, pp. 297-316, June 1946.
3. Ernest, Newland T. 'An Analytical Study of the Development of Illegibilities in Handwriting from the Lower Grades to Adulthood', *Journal of Educational Research*, Vol. XXVI, pp. 1249-58, December 1932.

strokes rather than rounded strokes (*u* for *n* or *h* like *li*), 11; end stroke difficulty (not brought up or down, not left horizontal), 11; top stroke short as in *h*, 6; difficulty in crossing *t*, 5; difficulty in dotting *i*, 3; various, 15.

Studies of this type are very revealing. They show that a relatively small number of errors vitally affects the legibility of handwriting. Sixty per cent of the above malformations were of four types. Forty-five per cent consisted of illegibilities in regard to only four letters—*a*, *e*, *r*, and *t*. Experience shows that wherever such facts are known teachers can rapidly improve the legibility of handwriting by focusing attention on a few crucial items. They can then undertake the correction of other types of errors and the improvement in speed. The need for similar studies in all forms and styles of handwriting, is, therefore, urgent.

MEASURING PROGRESS IN HANDWRITING

As pupils make progress in learning to write legibly, frequent studies should be made of both the speed and quality of their handwriting. The methods of obtaining objective records of these aspects of writing were discussed in Chapter IX. By making records under uniform conditions at intervals of two months or more, progress may be measured over a period of time. However, speed should not be stressed at the expense of quality of writing. In the case of many pupils, emphasis on speed is not appropriate until the fourth school year.

A second use of such records is to determine whether or not the group as a whole is making as much progress[1] as might normally be expected. This can be done by comparing the average speed and quality of a class with that of previous classes, or of other groups who have attended school for the same period of time. Careful studies should also be made of the various conditions that might influence the progress of particular groups of pupils; for example, irregular attendance, poorly trained teachers, lack of the necessary materials, little or no motivation.

Objective records are often of service also in deciding important issues such as those relating to the style of writing and the methods of teaching. For example, much interest has developed recently in Scotland and England in the use of 'italic' writing. It is favoured by many because of its more attractive appearance as compared with other cursive systems. No-one questions the value of the system on these grounds, but many are doubtful as to its claim to greater speed and legibility.

In order to obtain objective evidence regarding these matters, Thompson carried out a study[2] in four schools using different systems of handwriting. The pupils in various grades were asked to write for two minutes in three separate ways: their very best handwriting of a sentence copied down; as much as they could when writing an ordinary letter, and as much as they could when using their fastest scribble. By comparing the writing samples thus obtained, the conclusion was reached that whereas the quality of writing decreased greatly in the case of all four systems as the speed increased, nevertheless the 'italic' samples were 'on the whole completely legible and good to look at'. Furthermore, the italic writing was 6.4 per cent faster than any other style. At least a partial answer to a very controversial issue was thus given through the use of objective records of pupil achievement.

1. Freeman, Frank N. 'Standards in Handwriting', *Teaching Handwriting*, op. cit., pp. 3-6.
2. Thompson, George T. 'Italic Handwriting for Schools', *The Scottish Educational Journal*, Vol. XXXVII, June 1954, pp. 376-7.

DIAGNOSIS AND REMEDIAL TEACHING

In the case of pupils who make slow progress in learning to write legibly, detailed studies should be made of the nature and probable causes of their difficulties. Diagnosis should be undertaken as set forth in the diagnostic chart for measuring handwriting, shown in Figure 21, Chapter IX. As a rule, it is advisable to make an intensive study of the needs of one pupil at a time. As soon as the nature of the help needed by the first pupil has been fairly well identified, a similar study should be made of the deficiencies and needs of the next one, and so on. In the meantime, the corrective programme planned for the first should continue. By adopting this general procedure, a teacher can soon arrive at a relatively clear understanding of the kind of problems facing each pupil.

A few pupils have serious difficulty in learning to write due to physical deficiencies, such as poor vision, poor motor co-ordination, or malformation of the hand. Special efforts should be made to correct or counteract such deficiencies. A pupil will sometimes be found who reverses letters[1] or fails to write the letters of a word in the right order. Much tracing of letters and words and repeated practice in writing them will help to overcome these tendencies. In dealing with handicapped pupils the fact must be borne in mind that, as a rule, they will not be able to attain the usual standards or follow closely the prescribed style of handwriting.

1. Borel-Maisonny, G. (Mrs.). 'Comment on apprend à lire: méthode combinée... spécialement pour enfants présentant des troubles du langage et rencontrant des difficultés', *Psychologie de l'enfant et pédagogie expérimentale*, bulletin no. 386 and 389, XII 1948-III 1949, pp. 343-94. Paris, Société Alfred Binet.

Figure 22. Varied capital forms used in five systems of manuscript writing taught in the State of Wisconsin, U.S.A. Note that the forms for each letter vary from one in the case of *P* to four in the case of *K, M, U, V, X, Y.*

Wisconsin. Department of Education. Committee for Research in Handwriting. *Handwriting in Wisconsin. A Survey of Elementary School Practice.* Madison, Wisconsin, University of Wisconsin, 1951, p. 51. (Bulletin of the School of Education.)

Figure 23. Varied small letter forms used in five systems of manuscript writing taught in the State of Wisconsin, U.S.A. Note that the forms for each letter vary from one in the case of *e*, *i*, and *o*, to five for *q* and *w*.

Wisconsin. Department of Education. Committee for Research in Handwriting. *Handwriting in Wisconsin. A Survey of Elementary School Practice*, op. cit., p. 52.

CHAPTER XI

TEACHING HANDWRITING TO ADULTS

Most adults who are illiterate are as eager to learn to write as to read. Field workers in some areas report that the desire to learn to write is the chief reason why many adults join literacy classes. In efforts to satisfy this need much valuable experience has accumulated. Unfortunately, the results of very little research have been reported concerning the difficulties which adults find in learning to write, or the merits of different teaching procedures. The suggestions made in this chapter, are based largely on the experiences of field workers. They have been checked, however, by the results of research[1] on handwriting among children, in so far as the latter are applicable.

USES OF HANDWRITING

The uses which handwriting serves today among adults vary widely in different parts of the world. In the past, handwriting in some communities has often been limited to little more than the signing of one's name or the writing of very brief statements. In such cases, the minimum standard for literacy in handwriting demanded was: 'To develop the basic skills of writing well enough to be able to write one's name or a simple paragraph.'

A somewhat broader use of handwriting is reported from certain communities, particularly in South Africa, where men leave their homes to work elsewhere. One of the chief objects of attending literacy classes in such regions is to learn to write and read letters. The effort to meet this demand is reflected in the following requirement included in the description of a proposed literacy test: 'Writing a letter to a specific person containing specific information: The letter must be framed in the customary form, contain the sender's address, and his personal signature. An envelope should be prepared according to the accepted method and inscribed in such a way that the addressee is sure to receive it.'[2] A significant feature of this test is that it requires not only skill in handwriting, but the ability to achieve a specific purpose through its use.

As a result of a survey[3] made in the Philippines in 1951, it was found that adults

1. Since much use will be made in this chapter of the results of research on handwriting among children, it is recommended that all concerned with the issues discussed should read Chapter IX carefully.
2. Conference of Provincial Representatives. Zaria, Nigeria, 12-16 June 1950. *Report on a Conference of Provincial Representatives to discuss the Adult Literacy Campaign. Northern Region.* Zaria, Gaskiya Corporation, 1950, p. 6.
3. Isidro, Antonio. *The Use of the Vernacular in and out of Schools in the Philippines.* Quezon City, 1951, pp. 65-8.

used handwriting for various purposes, such as to keep accounts; write short notes or directions to those whom one is unable to see personally; write letters of praise or complaint on the right occasions; write down things to remember—the names of friends or things to be done in the future. Reports from Jamaica[1] indicate that the uses made of handwriting are similar to those in the Philippines in some respects and different in others. For example, adults keep personal accounts, prepare minutes of meetings and maintain group records, carry on correspondence, including the ordering of material for individual or group use, and note down important points made at meetings, lectures or demonstrations.

Reports from Puerto Rico[2] lay special emphasis on two functions of handwriting in addition to those mentioned above: to fill out forms and write letters of application for a position, and as an aid in one's job—for example, keeping records and making reports. Such uses of handwriting are assuming increasing importance in areas which are rapidly becoming industrialized.

As indicated by the foregoing example, the functions that handwriting serves today vary considerably. In order to develop a handwriting programme adapted to the immediate and probable future needs of the adults of a community two things are essential. The first is to determine through inquiry the various purposes that handwriting now serves and their relative importance. The second is to ascertain through a conference of community leaders the additional functions that it should serve in the future in promoting both individual and group welfare.

AIMS TO BE ACHIEVED

A second problem in developing a sound handwriting programme is to define the aims to be achieved through the training given. As implied by the foregoing discussion, these must be adjusted, in part at least, to the varying needs for handwriting in different communities. As a guide in preparing an adequate statement of aims, an analysis was made of the aims reported in all the handwriting programmes for adults that could be located. On this basis the following composite statement was prepared:

To arouse and deepen interest in learning to write.

To develop the ability to write clearly, legibly and with reasonable speed.

To guide adults in the use of handwriting until it serves the practical needs of daily life effectively.

To develop pride in one's handwriting and the habit of self-criticism in regard to it.

To promote the additional qualifications in writing required to increase one's economic status and social efficiency.

To stimulate interest in writing as a means of self-expression and of sharing experiences and ideas with others.

As indicated by the wider uses made of handwriting today, the first four of the six aims listed above should be stressed vigorously everywhere. In addition, each community should make as generous provision for the fifth and sixth—and possibly other—aims as is justified by local needs and available resources.

1. Reported by the Jamaica Social Welfare Commission, 3 June 1951.
2. Puerto Rico. Consejo Superior de Enseñanza. 'Exposición metodológica sobre la enseñanza de lectura a adultos analfabetos', *Educación de adultos: orientaciones y técnicas*. Río Piedras, Universidad de Puerto Rico, 1952, Chapter VII. (*Publicaciones pedagógicas*. Series II, 1952, No. 13.)

ORGANIZATION OF THE PROGRAMME

The aims described above indicate that there are two main aspects of a sound handwriting programme, namely, teaching the basic skills of handwriting and developing proficiency in its various personal and social uses. Experience shows also that many adults require some mental, physical and emotional preparation before training in handwriting can be started with profit, and that the welfare and progress of a community depend, in part, on the presence of individuals who advance far beyond the minimum level of competence in handwriting necessary for all. In the light of these facts, handwriting programmes can be suitably organized in four stages: Stage One: preparation for handwriting; Stage Two: mastering the basic skills of handwriting; Stage Three: learning to use handwriting in meeting practical needs; Stage Four: acquiring added proficiency in writing.

Because the teaching of reading and handwriting go in conjunction in most literacy programmes, each of these stages should be timed so as to correspond with the respective stage of the adult reading programme discussed in Chapter VIII. Moreover, levels of achievement should be defined for each stage following the first, and should be attained before certificates are granted indicating progress toward functional literacy.

In planning[1] the nature and scope of the training to be given during each stage certain characteristics of adults should be kept clearly in mind. Because of their greater physical maturity they have far better control of their muscles than children. On the other hand, their hands and fingers may be stiffer. Adults are generally more self-motivated and apply themselves more steadily. Most of them are also more willing to engage in drill activities in order to achieve desired ends. As a result of their wider experience, they have become acquainted with the details of many matters, recognize their importance, and consequently try to grasp the details of a new problem quickly. To a large extent they proceed much more systematically and logically in achieving their aims than do children.

STAGE ONE: PREPARATION FOR HANDWRITING

Most reports on teaching adults to write emphasize their very different characteristics and needs, and show how many of them require mental, physical and emotional

1. In studying the problems during each of the four stages in a handwriting programme, the following references proved very helpful:

Bivar, H. G. S. 'Learning to Write', *Education for All within Six Months, a brochure on adult education with special reference to Bengali.* Calcutta, Rabnidra Publishing House, 1949, Chapter VIII.

Carpenter, A. J. *Reading and Writing for All.* London, Longmans, Green & Co., 1948, 57 p. (Applies specifically to teaching of four West African languages.)

Mitchell, Eva Cornelia and Murphy, Marion McCown. Language workbooks : *A Workbook in Simple Language Arts, to accompany Readers One, Two, Three and Four.* Washington, D.C., Federal Security Agency, Office of Education, Educator's Washington Dispatch, 1950. (*Home and Family Life Series.*)

Puerto Rico. Consejo Superior de Enseñanza, op. cit.

Silveira, Juracy. 'Metodologia de leitura e escrita', in: Brazil. Campanha Nacional de Educação de Adultos. *Fundamentos e metodologia do ensino supletivo; curso de orientação pedagógica.* Rio de Janeiro, Departamento Nacional de Educação, 1950, pp. 161-79. (Publicação no. 12, Agosto de 1950.)

Unesco Group Training Scheme for Fundamental Education, Yelwal, Mysore. 'Teaching Adults to Write', *Teachers Guide.* Mysore, 1954, Chapter II.

Whipple, Caroline A., Guyton, Mary L. and Morris, Elizabeth C. *Manual for Teachers of Adult Illiterates.* American Association for Adult Education in co-operation with the United States Office of Education, Department of Interior, Washington, D.C., pp. 49-57.

preparation for learning to write. Carefully planned encouragement and training in such cases are of prime importance. Accordingly, the chief aims of the teacher during Stage One should be to become well acquainted with the members of his class and to provide the preliminary experiences that will enable them to learn to write with ease and rapidity.

BECOMING ACQUAINTED WITH STUDENTS

In order to guide students effectively in learning to write, a teacher should know their general level of maturity, their previous school or literacy training, if any, the extent to which they have learned to write, if at all, and the motives for their present class attendance. A personal interview preceding class work is highly desirable. It not only enables the teacher to obtain the necessary information under conditions least embarrassing for the adult, but it provides an opportunity to win his confidence and enlist his whole-hearted co-operation.

As a rule, the members of an adult class engage in different types of work and play varying roles in community life. It is important, therefore, for the teacher to know the answers to such questions as the following:[1] What kind of work does each do and what are the responsibilities involved? Is the adult by nature a leader or a follower? Is he aggressive or timid? What are his favourite recreational activities? To what organizations, if any, does he belong? Does he hold any position of importance in them? In what ways would ability to write be of value to him either in his work or in his recreational and social activities? Such information enables the teacher to plan the type of guidance suitable for each student during Stage One.

Adults often have defects that interfere seriously with their progress in learning to write. For example, their fingers may be stiff, their hands calloused, or their muscles unaccustomed to making the fine adjustments required in writing. Preliminary exercises are then needed to counteract such defects. They may also have visual difficulties which prevent them from recognizing differences in the forms of words and letters. These difficulties can often be identified by pointing to a given letter, such as *n* or *h*, and asking the student to find the same letter wherever it occurs in a short paragraph of three or four lines. Passages printed in 11 or 12 point type should be used for this purpose. Failure to respond successfully may point to the need for an eye examination. If the difficulty is serious and cannot be corrected, the adult should be advised not to try to learn to write, but if it is a minor one, the teacher should keep it in mind as the training proceeds. Other drawbacks that should be studied are defects of hearing, inability to give close attention to what is said, and difficulty in carrying out directions. The more fully a teacher is acquainted with such characteristics the better will he be able to guide his students in their efforts to learn to write.

PREPARING STUDENTS FOR WRITING

As an aid to further study of the members of a class and to preparing them for systematic training, a preliminary project is recommended. One of the things that most students want to do as soon as possible is to learn to write their names. By making use of this motive, interest and enthusiastic co-operation can usually be aroused. In this connexion, the following steps are suggested:

1. Puerto Rico. Consejo Superior de Enseñanza, op. cit.

Write the name of each student on the blackboard in fairly large letters, using the style of handwriting that is to be taught. If their names are long, write only the first name to begin with. Make sure that all the students observe the teacher's movements when writing and imitate them by motions of the arm in the air. This exercise should be repeated several times for each name.

As soon as all the names have been written on the blackboard, each member of the class should focus his attention on the movements involved in writing his own name. As individuals acquire ease and confidence they may trace their respective names on the blackboard, trying to develop freedom and speed in doing so.

Before the beginning of the next class period, write each student's name on a piece of blotting paper with the end of a pen-holder or other similar instrument. The name should be written about twice the ordinary size. Make each student trace his name with a pencil, holding it as nearly as possible in the approved manner for writing. Wide variations are to be expected at first in the way the pencil is held. In the case of right-handed students the paper should be tilted slightly to the left. If an adult expresses a decided preference for the left hand he should be permitted to use it and in this case the paper should be titled slightly to the right.

Each student should trace his name several times.

As soon as a student has learned to trace his name with considerable ease and confidence, provide him with a sheet of paper on which to copy it down. After he can do this reasonably well, he should try to write it from memory, not letter by letter, but as a single unit. If he makes serious mistakes, he should retrace his name on the blotter until he thinks he can write it from memory. This process should be continued until fair success is attained.

By this means the members of a class can acquire a notion of the writing act and start adjusting themselves to it. The teacher should observe carefully the facility or otherwise with which they follow the directions outlined above. He will thus learn what kind of help each one should receive.

Two additional steps may be taken at this time in preparing adults for instruction in writing. The first is to use handwriting for various purposes during class periods. For example, the teacher may write on the blackboard as he begins the first class meeting: 'Good evening'—I am 'Mr. Jones'—Our class will meet every 'Monday evening'. After writing each set of words in inverted commas on the blackboard, he may repeat the words, pointing to each in turn. Similar exercises may be done later during the same or subsequent class meetings. The chief object of such exercises is not to provide material for the students to read or write, but to show them that writing serves many useful purposes. As a result, a growing appreciation of its value develops.

The second step is to stimulate discussion about the purposes that writing may serve in daily life. It is helpful in this connexion to list, first, the most important uses that each member of the class expects to make of handwriting. A second list should then be drawn up showing other uses that it may serve. The importance of each use should be fully discussed. The teacher should add any uses not mentioned by the class that are of importance to the community or to certain individuals in the group.

In these and other ways motives for learning to write may be established before systematic training begins. As students make progress, additional steps may be taken to prepare them for increased competence in handwriting.

STAGE TWO: MASTERING THE BASIC SKILLS OF HANDWRITING

The amount that can be achieved is limited by the time reserved for this stage, which varies from 24 to 40 class hours in different communities. As a rule, group instruction is preferable, unless the working hours of the students make this impossible. Even when most of the training is given individually, a few class meetings at the beginning and subsequently at intervals are desirable for group encouragement and general guidance.

STYLE OF HANDWRITING

The problem of selecting a style of handwriting varies in different parts of the world. Most countries that use complex graphic signs (logographs, syllabaries and ideograph-like letters) have only one style of handwriting. In such cases no choice has to be made. However, the wisdom of adopting simpler styles of handwriting has been seriously considered in many of these countries. As pointed out in Chapter X, experimental use of modified characters has recently been made in a few countries, and even more radical changes have been proposed in others. Such innovations merit careful study wherever a system of complex characters is in use.

The need for selecting a style of handwriting for use in literacy classes arises in most countries which have Roman letters. Several issues are involved. The first concerns the wisdom of selecting a script or a cursive style. The fact that the latter is used almost entirely at the adult level is a strong argument in its favour. On the other hand, script is easier to learn than cursive, and is usually written more legibly. This is partly due to the fact that many adults find it difficult to make the muscular movements necessary for efficient cursive writing. Moreover, the use of print-script is being required today to an increasing extent in signing names and filling out forms. The additional fact should be mentioned that most adults attending literacy classes will use handwriting only to a limited extent. Apart from personal preferences, therefore, it does not matter much if they do not learn cursive writing. For the various reasons given, the use of a script style of handwriting—at least during the early stages in learning to write—has distinct advantages.

As soon as a script style is adopted, the question arises concerning the relative merits of connected and unconnected script. The latter is simpler and corresponds more closely to print. Its use, therefore, results in more rapid progress in learning to read. However, in the opinion of many literacy specialists, notably K. Neijs, Adviser on Literacy, South Pacific Commission—connected script is preferable. This is because the transfer can be made more readily later to cursive writing. Some who favour this plan begin with the use of unconnected script, transfer a little later on to connected script, and finally provide training in cursive writing. This has distinct advantages if cursive writing is ultimately to be taught. Before it is introduced, a choice must be made between various systems of cursive writing. As pointed out in Chapter IX, available evidence favours the use of a moderately slanted filiform style, 'whose down strokes and loops are so formed as to promote facility of execution'.

STUDENT CHOICE OF STYLE OF WRITING

The use of a script style of handwriting at the beginning of Stage Two often creates problems. Some adults are opposed to script writing, either because it is used by children or because they are preparing for a position which requires cursive writing.

In Puerto Rico[1] and many other centres, it has been found advisable, if problems arise, to give students the opportunity of choosing the style of writing they will learn. They can make a sound decision, however, only after the relative merits of script and cursive writing have been discussed and they have had at least some practice in writing each. To provide the necessary practice some centres use the following exercise,[2] which should be duplicated, if possible, or written on the blackboard:

(script)	c a n	c a t	
			(Picture of a cat)
(cursive)	c a n	c a t	

As soon as copies are in the hands of a class, or on the blackboard, attention should be directed in turn to each of the two styles of handwriting represented. Their relative merits should be considered with emphasis on the fact that one is used most by adults and the other is easier to learn. It is also advisable to point out that the general intention is to teach script writing first and cursive writing later to those who wish to learn it. The students should then be told to write each word twice on the left-hand side of the sheet, using first one model and then the other. After several such exercises have been completed, they should be asked to write each word again under the picture on the right-hand side, using the style of writing they prefer.

As a rule, the decision made by each student should be respected. If an individual is uncertain as to which style to select, he should be encouraged to use script at first and to change later to cursive writing if he wishes to do so.

METHOD OF TEACHING

The choice of a method of teaching handwriting is no less challenging than the selection of the style of writing to use. Here the central issue concerns the wisdom of initial practice in the elements of handwriting as contrasted with practice in forming letters or whole words. Three different procedures are widely followed. In many parts of the world practice is given, first, in the basic strokes involved in forming most of the letters. The following quotation describes this procedure as used in teaching adults to write Bengali.

> The basis of Bengali writing is the horizontal line over the top of characters (fortunately, the pupil will not have to overcome the tendency of those knowing the Roman script to write above and not below 'the line'). The next main form is the vertical upright stroke. Hence the pupil should first be practised in writing horizontal and vertical lines and in joining them together.
>
> Fortunately for the pupil, curves do not come in early as in Roman script.
>
> The next lines the pupil will learn are lines sloping at an angle of 45 degrees in each direction.... Seven letters can be formed from these lines.... Next the pupil should be practised in drawing small curves clockwise and anti-clockwise at various angles. From these he can add six letters.... After the pupil has mastered his 'pot hooks' (the basic forms common to most letters) as above, he can be taught to write other letters. The pupil should be taught to write as soon as he can read a sufficient number of letters and, thereafter, when a new letter is taught the pupil should always be taught to write it. The essential part of every letter which distinguishes it from others should be pointed out to the pupil, and care taken that he learns never to omit this part when he begins to write fast. The pupil should be given plenty of writing to do, so that he feels he can write easily as well as read.[3]

1. Puerto Rico. Consejo Superior de Enseñanza, op. cit.
2. United States Armed Forces Institute. *Improving your Reading. Book One.* New York. Ginn and Co., 1943, p. 15. (*War Department Education Manual,* E.W. 155.)
3. Bivar, op. cit., pp. 25-6.

The foregoing plan, as applied to Roman letters, has been criticized by Montessori, Dottrens and others on the ground that making straight lines is often harder than making curved lines, or indeed entire letters. Moreover, practice in forming the elements of letters is to a large extent a meaningless task and often fails to evoke interest. These arguments apply to adults as well as to children. The fact must be admitted that the forms of letters in some languages are far more complicated than those of Roman letters. The writer has been unable to discover studies of the relative merits of analytic versus synthetic methods of teaching handwriting where highly complex graphic signs are used. Objective evidence is greatly needed concerning this important issue.

Instead of beginning with the basic strokes of letters, a second plan provides practice first on separate letters. They are introduced either in the order of presentation in the primer, in alphabetical order, or in groups that are similar in form. Advocates of this plan claim that adults are greatly aided in learning to write by comparing and writing letters which differ only in minor respects. As soon as a sufficient number of letters have been learned they are written as parts of words. Two criticisms are made of this plan: it is difficult to arouse keen interest for any length of time in making separate letters, and the writing of a letter is influenced to a considerable extent by what precedes and follows it. These criticisms are being largely obviated in some places by providing only a small amount of practice in forming letters before the writing of words and short sentences actually begins.

A third plan starts with a whole word or phrase which the adult wants to write. This is the so-called global plan of teaching handwriting. One of the advantages claimed for it is that both the initial effort to write and subsequent practice are more highly motivated than in either of the preceding plans. As new letters are introduced they can be readily identified through analysis, followed by special attention to their unique features. As an aid in learning to identify specific letters, some teachers who favour the global plan place a copy of the alphabet in the hands of students to begin with and make them copy all the letters two or three times, noting the special characteristics of each one. As particular letters are later identified as parts of whole words, additional practice is given in them to the extent needed.

Similarly, when students make mistakes in writing words attention is drawn to the parts that cause difficulty. As progress in correcting mistakes is made, practice in regard to the whole word continues. The distinct advantage of this plan is that most of the practice is on the whole word, which alone has meaning. And it is the meaning of what is written that brings about the continuity and fusion of the successive movements required in writing. Because of the ability of most adults to analyse wholes into their parts, attention can be concentrated on the improvement of specific letters as parts of words almost as soon as practice in handwriting begins.

At least two important criticisms are made of this plan: too little attention is often given to the correct formation of letters to ensure clear, legible writing (this is an error on the part of the teacher rather than a weakness of the method) and it requires insight on the part of teachers to deal with difficulties and make the necessary adjustments in teaching to overcome them. Without doubt the training and experience of teachers and their personal preferences should determine the final choice of a method; however, a clear understanding of individual difficulties and how to meet them is essential in teaching adults to write whatever method be adopted.

We may conclude that in the light of the evidence now available, it is difficult to defend a method of teaching adults to write which concentrates attention at the beginning on the elements of letters. Even when highly complex characters are used, additional evidence is needed in order to justify its use. A far more valid method concentrates attention from the beginning on the writing of whole words, coupled

with sufficient practice on specific parts of words that cause difficulty to ensure clear, legible writing. Reports from various centres point out the value of a brief comparative study of the shapes of the letters and their striking features shortly after training in handwriting begins. This enables students quickly to identify new letters as they appear in words that are to be written. An important outcome of the use of this general procedure is a growing mastery of handwriting as an aid in the expression of meaning.

TYPE OF MATERIAL TO USE

We now turn to the type of material that should be used in adult classes in mastering the technique of handwriting. A common practice has been to copy out new letters and words introduced daily in the primer. This practice has the advantage that it is economical, easy to work, and promotes progress in the recognition of new words. Its weakness lies in the fact that the items written are unrelated to the writing interests of adults; hence there is little incentive for engaging in it. It also tends to cultivate the idea that writing consists primarily in copying rather than in giving expression to ideas. These drawbacks have been partly overcome in recent reading material for beginners[1] through the introduction of subject matter of immediate interest to adults.

Another practice is based on material which the students are keenly interested in learning to write, such as their names, addresses, the days of the week, things to remember. Because the need for learning to write such items is clearly recognized, the students give themselves whole-heartedly to the task. The usual procedure is as follows: the teacher writes the material to be copied on the blackboard; the students copy it as accurately as they can; mistakes are pointed out and rectified; the material is rewritten until a clear, legible copy has been made. This procedure is criticized because it requires careful planning by teachers to ensure orderly progress in mastering all the essential aspects of handwriting and to adjust the practice activities to the needs of individuals. In many places it is claimed that the literacy teachers available are unable to plan and direct such a programme.

A third plan makes use of a set of practice materials which include carefully worked out sequences of writing exercises. In the past, the materials used were prepared by handwriting specialists and the same is true to some extent at present. As a rule, the practice exercises provided were chosen with little or no recognition of the felt needs of students for learning to write specific items. Because this plan often failed to encourage students and prepare them directly to engage in writing activities of immediate practical value, new types of practice materials[2] have been evolved.

These newer materials take the form of workbooks and possess at least three common characteristics: they place great emphasis on the immediate handwriting needs of adults; they provide copies and space for daily practice and they promote language habits essential in most writing activities. The content of such workbooks should vary, of course, to meet the needs of specific language and cultural areas. If workbooks of this type are used they should be supplemented almost daily by writing activities that grow out of the immediate interests and needs of a class.

1. Smith, Harley A. and King, Ida Lee. *I Want to Read and Write.* Austin, Texas, The Stack Company Publishers, 1950, 128 p.
2. Mitchell and Murphy, op. cit.
   Owens, Albert A. and Sharlip, William. *Elementary Education for Adults.* Philadelphia, Pa., John C. Winston Company, 1950, 126 p.

For parts of the world where appropriate materials are lacking, responsible agencies[1] often prepare manuals for the use of teachers which outline the essentials in teaching adults to write. Such manuals are very useful in that they provide guidance in selecting specific practice activities adapted to local needs. They do not do away with the necessity for careful planning of handwriting programmes by local groups or teachers.

TOOLS AND EQUIPMENT

Of great importance in teaching adults to write is a good blackboard. It is a valuable aid in acquainting students with many practical uses of handwriting and in providing them with models to be copied. Some of the initial writing activities of students can also be carried on to great advantage at the blackboard.

Owing to the fact that blackboards are rather expensive and sometimes difficult to import, some communities cannot easily obtain them. Fortunately there are substitutes.[2]

One is a sturdy 'blackboard cloth' which can be tacked on to a flat surface. Or the students 'can be encouraged to sand pieces of board or packing boxes, and paint them with blackboard paint. These serve very well, even though the black paint rubs off rather easily. Ordinary chalk can be used on either of these surfaces. If there are schools in the area, it is possible that the blackboard cloth, blackboard paint and chalk can be obtained from the same company that supplies the schools.'

No matter what style of writing is used, plain white unruled paper and thick smooth pencils with medium or soft lead are needed. If the teacher or some agency supplies these materials, uniformity is desirable. If the students purchase them, a clear description of the types needed should be given. If those acquired vary somewhat in nature, the resourceful teacher need not be discouraged. A pen should not be used during Stage Two or until considerable skill in writing with a pencil has been achieved. Depending on the advice of the handwriting specialist consulted, fountain pens may be used as soon as the students are ready to use ordinary pens. They have the advantage of doing away with the need for ink-bottles or wells. Ball-pointed pens may be used as soon as students have learned to write fairly well with pencils. Like the latter they often leave smudges on the paper.

SUGGESTED TEACHING PROCEDURES

As previously remarked, the teaching of handwriting should be intensely practical. It should be based on materials adults want to write and should therefore be highly motivated. The writing activities on a given day should be such that they can be readily mastered, so that the students acquire a feeling of accomplishment and progress. If prepared guides are available which are in harmony with sound procedures, they should be used, particularly by unexperienced teachers. As a partial guide in areas where such materials are lacking, the following suggestions are put forward.

1. *Report on a Course for Organizers of Adult Literacy Schemes, Northern Region*, held at Zaria from 23 May to 3 June 1950. (See also: Gray, William S., *Preliminary Survey on Methods of Teaching Reading and Writing*, Part II. Educational studies and documents, Education Clearing House, Unesco, Paris, 1953, pp. 71-3.)
2. Gudschinsky, Sarah. *Handbook of Literacy*. Norman, Okla., Summer Institute of Linguistics, University of Oklahoma, 1953, p. 25.

Adults should acquire an acquaintance with written symbols and their uses before efforts to master the basic skills of handwriting begin. In communities in which reading and writing are already cultivated this is usually managed for most students before they enrol for literacy training. When it is not, the types of activities outlined for Stage One may have to be expanded and continued well into Stage Two.

Since all students want to learn to write their names, the effort which began during Stage One may be continued to advantage. At the beginning of the handwriting period, provide each student with a copy of his first name. Call his attention to the long and short letters and to other striking features. After he has written his first name several times as a whole, he should practise writing each letter separately. If connected script or cursive writing is used, at first, the teacher should rewrite the name of each student leaving the letters unconnected. As the student practises with each letter, his attention should be drawn to mistakes and he should be given the necessary help. Near the end of the period he should write his first name again several times as a whole.

During the next five practice periods the same procedure should be followed as the students learn to write their last names, their whole names, and their addresses, including house number and name of street, if any. Before beginning each new step, the previous items learned should be reviewed. As the letters are practised they should be compared with a complete set of the letters on the blackboard or on a chart, Some teachers provide each student at this time with a copy of all the letters written in capital and small form, one above the other. These are referred to daily by the students in comparing the accuracy of the various letters which they write. As each new letter is learned, the student should memorize its name for future use. He should also check it against his personal set of letters in order to note the progress he is making from day to day.

By this time most of the students will have learned to write half or more of the letters. Different students will know different ones of course. They should be encouraged to learn to write the remaining ones as quickly as possible. Some teachers give different words from day to day representing things or activities in which the students have expressed keen interest. Practice is then provided in writing each word as a whole and in mastering its details, according to the plan outlined above. Other teachers prepare a sentence which includes all the letters in the alphabet (e.g.: 'The brown fox jumps over the lazy dog quickly'). The students are then encouraged to practise writing the various words. They should be able to do much of this work at home. The teacher should therefore supply each student with a carefully written copy of the sentence. Students should keep a record of the results of their initial efforts in writing each word, each new letter, and then the word as a whole again.

When the students present their homework each day the teacher should look over it carefully. If the final copies are unsatisfactory, he should ask the students to identify the mistakes made by comparing their copies with the letters on the model chart. Any assistance in identifying mistakes should be provided. Gradually, however, all students should be able to judge of the accuracy and quality of their own handwriting. As specific mistakes are noted they may be dealt with by students in the following manner: (a) tracing a model of a letter, saying its name; (b) tracing it several more times with a pencil; (c) covering the letter and writing it once on paper; (d) comparing the letter with the model ; (e) if correct, rewriting it several more times to ensure mastery; if not, repeating the preceding steps until reasonable accuracy is attained.

Students may also begin to write the new words in the reading lesson as an aid to remembering their form and learning to spell them. The value of such exercises is

enhanced to the extent that the students have already learned to form all the letters. Effort can then be concentrated on remembering the word and on its spelling. As soon as students have learned all the letters they can begin to write sentences. Such tasks may also be set as homework. The results should be reviewed in class the next day and rewritten, if necessary, to ensure a clear, legible copy.

When the various letters of the alphabet have been mastered, effort may be concentrated throughout the remainder of Stage Two on learning to write items of practical value to students, such as how to compose a letter, laying emphasis on each of the following: (a) the addressing of an envelope, first to oneself and then to the person to whom the letter is to be sent; (b) the date of the letter with the writer's address above it; (c) the salutation; (d) the body of the letter—this should be very short ('We are all well. Will you write to me?'); (e) the close of the letter. After this preliminary training, each student may attempt to write a very short letter to someone. This should be preceded by a discussion of the things they might wish to say. Model sentences should be written on the blackboard to be copied as needed. The teacher may find it necessary to provide individual students with additional models. After the letter has been written it should be appraised by the student and rewritten until a clear, legible copy of it is achieved.

The above are suggestions only. They may be modified or extended to meet the needs of specific communities. If script writing is used, teachers will find the references on page 215 and in Carpenter's *Reading and Writing for All*[1] very helpful both in learning to write script and in getting to know important details with regard to teaching it. If a cursive or other complex style of writing is used, each teacher should get hold of the best guide for the system used and study it carefully so as to familiarize himself with its special problems and difficulties.

ADDITIONAL STEPS DESIRABLE

Because many adults drop out of literacy classes at the end of Stage Two, two additional steps are desirable. The foregoing training in writing letters should be supplemented by providing students with models of several types of brief personal and business letters for which they will probably have greater need. If duplicated copies cannot be provided, they may be written on the blackboard and copied by the students. Special attention should be called to the form of the heading, the salutation, the body of the letter, the complimentary ending and signature. If students attempt to adapt any of the suggested forms to their personal needs during Stage Two, help should be given wherever necessary.

In some illiterate classes adults are provided with a booklet of forms,[2] which serve as a guide both while classes are in progress and as a source of self-help after the training period is over. A booklet of this type has been used also in literacy work in the Sudan.[3] It opens with a discussion of how to write a letter. This is followed by descriptions of situations which often lead to letter writing, each accompanied by a sample letter. Typical samples are: a letter from a father to his son; a letter to a government inspector applying for permission to build a dam; a letter from a husband to his wife; a letter of condolence; a request for a loan; an application for a job, etc.

Another thing that should be done is to familiarize the members of a class with

1. Carpenter, A. J. *Reading and Writing for All*, op. cit.
2. Rosenfeld, Jeannette B. and Cass, Angelica W. *Write your Own Letters. Simple Letters for Adults.* New York, Noble and Noble Publishers, Inc., 1950, 64 p.
3. Khartoum. Institute of Education. Publications Bureau. *Kaifa taktub khitāban* (How to write a letter). Khartoum, 1952, 32 p. (Serial No. P/B/E/4.)

such printed forms as are used in the community and which must be filled out on occasion by adults. A display of deposit slips, notes, receipts and money orders should be posted on the bulletin board where they can be studied at leisure. Time should be reserved during class periods to discuss the purpose of each, how it is used, and the way to fill it out properly. Copies of the various forms should be obtained in sufficient quantity so that every student can fill out one of each kind, preferably in script, and keep the lot as models for future use.

STAGE THREE: LEARNING TO USE HANDWRITING IN MEETING PRACTICAL NEEDS

The chief objects of the training given during Stage Three are to improve the quality of the handwriting of students and to promote increased competence in its use in meeting practical needs. These objects are achieved during a period in which adults learn to spell and read the most frequently used words in their oral vocabulary.

At the beginning of Stage Three, the teacher should make a careful survey of the chief uses of handwriting among adults in the community and of the information and skills required in each case. The members of the class are, of course, a valuable source of information. In addition, the teacher should confer with such people as the postmaster, the storekeeper, employers, literate farmers, the magistrate, the town clerk etc. In the light of all the information obtained, the teacher should plan a programme of handwriting to meet the various practical needs of local life.

BASIC SKILLS OF HANDWRITING

Definite improvement should be made during Stage Three in ability to write clearly and legibly. If a prescribed system of handwriting was used during Stage Two, it should be continued, as a rule, unless it has been found to be unsatisfactory for any reason. If, however, unconnected script was used, and it is planned to transfer to cursive writing later, connected script should be introduced at or near the beginning of Stage Three. As a partial guide to teachers who find it necessary to plan the handwriting programme for their students, we offer the following suggestions:

1. A review of the items which the students learned to write during Stage Two, their names, addresses, the letters of the alphabet, and numbers 1 to 10. In reviewing the letters of the alphabet, use should be made of words of high interest value and of the sentence comprising all the letters of the alphabet that was suggested for Stage Two.
2. Capital letters. Students should learn to write and use all capital letters. The same words which begin with small letters should be written by them beginning with capital letters. Whenever a student is uncertain, he should refer to his standard copy of the letters and practise writing the word with a capital letter until he has learned to write it legibly and without hesitation. Tests should be held from time to time to see if students are able to write down given words with capitals without reference to any such standard copy.
3. Difficult combinations of letters. Each alphabetic language has combinations of letters which are more difficult to write than others. For example, *ba, on, vi, we* and *qu* present problems where Roman letters and cursive writing are used. Each such combination should be discussed, attention being called to the way in which the two letters are joined. Frequent opportunities should be provided for practising difficult combinations until they can be written correctly.

4. Forming and writing sentences. If adults are to use handwriting for conveying ideas to others, they should learn to plan and write sentences. A helpful exercise is to place on the blackboard questions which the students can answer in complete form. For example: 'Do you like to read?' The students write: 'I like to read'. By carefully selecting his questions the teacher can acquaint students with many characteristics of a written language, such as the use of marks to indicate tonal values.
5. Copying new words and short passages that appear in reading lessons. The purpose is not only to improve the quality of the handwriting but to learn to spell words which adults will be continually using in their own writing activities. Teachers should give frequent spelling and dictation tests to check up on the progress in spelling.

In efforts to improve the quality of the handwriting in all types of practice activities various devices may be employed. To stimulate a student's pride in his handwriting, well merited praise is often very effective. The use of a bulletin board on which good samples of students' handwriting are posted usually promotes keen interest and competition. It is also useful to make each student keep dated samples of his writing in a folder and compare them from time to time for evidence of progress.

Another device is to develop the habit of continuous self-appraisal on the part of students. (An individual copy of the letters in both capital and small form is essential in this connexion.) They should be encouraged to compare their own writing with their copy of the letters after each practice exercise. If mistakes are found, efforts should be made to correct them by means of the techniques described in Chapter X. As soon as this has become part of a student's routine, his handwriting activities can largely be carried on at home. Some of them, however, should still take place under the teacher's supervision so that he can provide the necessary guidance, and all homework should be brought to class for him to examine. Anything not satisfactory should be rewritten until it is perfectly legible.

TRAINING IN THE USES OF HANDWRITING

Training in the practical uses of handwriting should parallel the effort to promote greater mastery of the skills of handwriting throughout Stage Three. It may begin with a review of what was learned during the preceding stage about letter writing. This can be done by means of a letter of excuse written to a day-school teacher. At the suggestion of the class, the teacher writes on the blackboard the date, the salutation, the body of the letter ('Jane was sick yesterday. She could not go to school. Please excuse her'), the complimentary close, the signature. Each student then makes a copy, compares it with his standard copy of the letters of the alphabet and rewrites the letter, if necessary, until a legible example of it has been made.

In order to deal with the problems encountered by students in writing personal letters, the following methods may be adopted:

1. Discuss briefly the purpose of such letters, the occasions when they are usually written, and the principal contents (date, opening words, body of the letter, closing words, signature and address).
2. Consider more fully the importance of the writer's address and the date, and their place in the letter. Write on the blackboard the several ways in which the address and date can be written (complete, incomplete, at the beginning, at the end, etc.). Discuss the relative advantages and disadvantages of each. Draw attention to the most generally accepted form. Make each student write the appropriate address in his own case, and the date.

3. Discuss next the purpose of the salutation or greeting, the form to use in writing to members of one's immediate family, to relatives, to close friends and to acquaintances; also the use of 'Doctor' or other special titles. Then give practice in selecting and writing the appropriate salutation in the case of various people.
4. The body of a letter should be studied with special care. After reviewing the reasons for personal letters, each member of the class should decide on some reason for corresponding with a particular person and should write a very brief letter with that purpose in mind. While the students are thus occupied, the teacher should move about among them and give help where needed. As soon as the letters are finished, some of them should be read to the class for comments and suggestions.
5. The closing of the letter and the signature can properly be studied together. The same method should be used as the one suggested for teaching the different kinds of greeting.

After this series of discussions, several periods should be devoted to practice. Encourage the students to prepare letters they really want to write. Limit the length of the letters at first to a very few sentences. As a rule, the content of the letter should be expressed in the words the students know. If, however, a particular student cannot spell a word essential to his letter, the teacher should spell it for him.

As progress is made in the writing of personal letters, the form and content of business letters should be studied. The various parts of such letters should be considered individually, according to the procedure outlined above for personal letters. Attention should then be given, in turn, to writing a series of short business letters which the members of the class would most likely have occasion to write—a request for a catalogue, the price of an article or other specific information, an order for goods, a letter containing a remittance, a request for street or road improvement. As attention is concentrated first on one type of letter and then another, the teacher should help the students word the letter. After it has been completed the students should copy it and rewrite it, if necessary, until a legible copy has been made. This should be kept in the student's folder or workbook for future reference. This procedure is essential, particularly if a printed copy of samples of letters, similar to the one referred to on page 239 is not available.

At frequent intervals throughout Stage Three a careful study should be made of the various printed forms which were placed on the bulletin board and examined briefly towards the end of Stage Two. They include such items as deposit slips, money orders, notes. It is advisable to secure for class use twice as many copies of each form as there are students. The various items on the form should be discussed in order, until their meaning and importance are clear, special attention being paid to the parts that have to be filled in. See that each student practices writing the various items until he can do so clearly and legibly. A copy of the form should then be filled out by each student and placed in his folder for future reference.

DIAGNOSIS AND REMEDIAL HELP

Throughout Stage Three teachers should give special attention to the needs of all students who find it difficult to learn to write well. It is advisable to limit such attention to the needs of one student at a time, beginning with the student having greatest difficulty. The first step is to examine a student's handwriting critically to find out the nature of his errors or difficulties. A detailed comparison of the student's writing with good models of the system of handwriting used is generally very revealing. The technique to use in making such an analysis is illustrated by Free-

man's chart for diagnosing faults in handwriting, (see Figure 20). The fact should be kept clearly in mind, however, in making such a diagnosis, that the chief aim is not exact conformity to the model but a clear, legible style of handwriting adapted to the capabilities of the student. The second step is to observe the student during the process of handwriting to identify possible causes of error or difficulty—failure to observe the forms of letters carefully, inability to keep essential details in mind, stiffness in muscles or joints, carelessness. The third step is to adopt a series of practice exercises adapted to his specific needs and closely to supervise his efforts until improvement occurs. Special attention can then be given to a second case. In the course of a few weeks the teacher should acquire at least a fair understanding of the main difficulties each student encounters in learning to write, and should have made definite progress in overcoming them.

PROPOSED STANDARD OF ATTAINMENT

An examination test at the end of Stage Three may include the writing of a personal letter, a business letter, the filling out of forms, and the writing of a series of two or more brief paragraphs limited to words in the thousand most frequently used words in the language. In judging the students' efficiency, such matters as the following should be considered: quality of the handwriting, correctness of the forms used in writing letters—spelling, punctuation, and language usage.

STAGE FOUR: ACQUIRING MORE MATURE WRITING HABITS

At least four aims direct the nature and scope of the handwriting programme during Stage Four. The first is to continue the training of students in the skills and uses of handwriting along the lines suggested for Stage Three. For those who do not care to learn a cursive style of handwriting, continued use should be made of script writing. The second is to effect the transfer to cursive writing in the case of all students who now prefer it. If they have been taught to use connected script, as suggested earlier, the change to cursive writing should not be difficult. Intensive training should, however, be given as soon as possible. This involves, first, a careful study of differences in the forms of the respective letters and, secondly, repeated practice in making them, preferably as parts of words, until students are able to write them clearly and legibly. In this connexion, good use can be made of the steps outlined in Chapter X, page 218 and 223-4. A good quality of handwriting should be attained before emphasis is laid on speed.

A third aim is to prepare adults to use handwriting as an aid in earning a living. To an ever-increasing extent many types of jobs require the use of handwriting in one form or another. The teacher should make a study of such requirements in the community and develop among his students the knowledge and skills needed. It is often very useful to get an employer to describe to the students the kinds of forms to be filled out and reports to be made. More and more, those who wish to apply for jobs are being required to do so in writing. These letters are read carefully, first, for the specific information they contain and, secondly, for clues concerning the applicants' neatness, carefulness, preciseness. Extended training in the content, form, effectiveness of expression and quality of writing in letters of application is therefore very important.

Many of the young people and adults now in class are potential community

leaders. Upon them will be placed responsibility for preparing minutes of meetings, keeping records of organizations, and summarizing in written form the results of observations, discussions and community projects of various types. Furthermore, some of them will derive increasing pleasure from recording their experiences and expressing their ideas in written form. As a result of advanced training, young people and adults should be able to participate in these various activities with greater effectiveness. This means ability to express ideas clearly, forcefully and in a correct manner.

It follows that the language arts programme at the adult level should be extended far beyond its usual limits in most communities. Provision should be made for the systematic guidance of those who show promise and are eager to improve their writing under a competent teacher of oral and written expression. A first responsibility of such a teacher is to help adults discover motives for writing and aid them in finding appropriate content. A second is to examine their written work with care and find out the strong points, deficiencies and needs of each one. A third is to provide the special information and skills required to overcome defects and increase the effectiveness of their writing. A fourth is to provide continuous encouragement and sympathetic guidance. As a result, many young people and adults will not only be able to live their own lives more fully and abundantly but will be prepared to render community service of greater value.

CHAPTER XII

ACTION REQUIRED TO ATTAIN THE GOAL

Two facts stand out impressively in the preceding discussions. The first is the need for vigorous effort everywhere if world literacy is to be attained. The second is the need for adopting literacy programmes and teaching procedures to the demands of specific communities. This implies that local leaders face challenging responsibilities in developing appropriate programmes and in providing the human and material resources required. It seems advisable, therefore, as the final stage in this report, to discuss the main problems with which these leaders will be called upon to deal. Owing to the great urgency of these problems, the discussion will be limited to the promotion of literacy at the adult level and in the vernacular.

BASIC FACTS ON WHICH TO BUILD

Let us, first, review briefly the main facts and conclusions reached in previous sections of this report. They form the basis of the proposals which follow.

The promotion of literacy is not an end in itself. It is rather an integral part of a broad attack on all the conditions that are detrimental to individual welfare and retard group progress.

As one of the vital factors in this process, fundamental education seeks to help people understand their immediate problems and provide them with the attitudes and skills needed for solving them through their own efforts. In carrying out these purposes, every means of communicating ideas and all available aids to learning are used. Although concrete aids to learning are employed almost entirely in the initial attack on problems, sooner or later ability to read and write is essential in promoting individual and group progress.

Reading is of great value in meeting the practical needs of daily life, in improving health and standards of living, in acquiring a growing sense of citizenship and willingness to work for the good of all, in widening one's understanding of the world, broadening one's cultural background, and satisfying religious needs and aspirations. It is of particular importance in the study of personal problems.

If reading and writing are to achieve the broad purposes outlined above, the minimum standards of literacy that prevailed earlier are no longer adequate. Instead, the training must be continued until functional literacy is attained. This was defined as that level of ability to read and write which enables individuals to engage effectively in all those activities normally undertaken within a specific group and within the broader culture of which it is a part.

The nature and scope of literacy programmes and many of the specific ends to be achieve are definitely influenced by the needs and conditions prevailing in

specific areas. This is due to the fact that individuals and groups are in large measure the products of their cultural heritage. They vary in their needs, level of advancement and aspirations, in their anthropological and historical background, their geographic location and their contacts with other cultures and groups, and in the various social, economic, political, religious, and educational forces operating among them. As a result, the nature and extent of their immediate need for literacy differ widely.

Two main principles have been adopted as valid guides in planning literacy training: first, the nature and duration of the training should be adapted to the needs of the specific group served, and secondly, the reading and writing activities provided should be based on the immediate interests, motives and purposes of those taught.

The nature of the training given is further influenced by the form and structure of the language involved. Specific problems encountered in developing skill in word recognition depend, in part, on the kind of characters used in the written language. Moreover, many languages which employ the same kind of characters differ in other important respects which make the use of special techniques necessary.

Fortunately, however, the reading act as such is the same in most, if not all, languages. For example, all good readers read with their minds intent on meaning. As they do so their eyes move along the lines in a series of short alternate movements and pauses. As a rule, they recognize words as wholes, usually in units of two or more. At times, they make regressive or backward movements along the lines in the effort to grasp a new word accurately or to obtain a clearer sense of the meaning. However, they have mastered the basic reading skills so well that they engage with little or no difficulty in either silent or oral reading.

The basic attitudes and skills involved in reading are the same in all languages, and may be classified under four heads: the accurate perception of words, a clear grasp of the meaning of what is read, thoughtful reaction to the ideas acquired, and their use or application. This provides a common framework, or set of objectives, within which many of the problems faced today in promoting world literacy can be discussed to advantage.

The methods of teaching reading which have been used in the past vary both in their nature and in the assumptions that underlie them. They were studied first historically to identify the trends which developed as a result of tested experience. The earliest methods concentrated at the beginning on the elements of words, on the assumption that a mastery of them was an essential aid to word recognition. These methods were followed in turn by others which made use from the beginning of word wholes and larger language units. The words thus learned were sooner or later broken down into their elements and used as aids to word recognition. The assumption was that the meaning of what is read should be stressed from the beginning, and that this approach to word mastery harmonizes closely with the way in which both children and adults learn in general. Recent trends have been eclectic in character, thus incorporating into a single system many elements of earlier teaching procedures of established worth. They are also learner-centred, on the assumption that learning is more rapid and effective when the materials used are based on the learner's immediate interests and felt needs and the methods are adapted to his level of maturity and unique characteristics.

A study of the results of research into methods of teaching reading led to four significant conclusions: (a) A given method does not always produce equally good results wherever it is used. This implies that there are other factors, such as the efficiency of the teacher and the capacity of the learner, that influence progress. (b) Different methods produce different attitudes and skills. For example, primary emphasis on the elements of words promotes skill in word recognition; that on whole

words develops a concern for the content of what is read. (c) The use of different methods starts pupils on different roads towards ability to read. To ensure efficient reading, all aspects of reading must sooner or later be cultivated. (d) Best results are secured, as a rule, when both a clear grasp of meaning and accuracy in word recognition are stressed from the beginning.

The chief trends in the teaching of handwriting have been similar to those in reading. As a result, initial writing activities in the case of both children and adults start with the writing of whole words, supplemented by training in specific elements where needed. The use of simplified forms of writing is preferred during the early stages. Instruction in handwriting parallels that of reading from the beginning. Although the materials used in teaching handwriting are based far less than formerly on the contents of primers, handwriting is used as soon as possible as an aid in mastering word recognition and spelling.

Proposals made in connexion with promoting world literacy will be considered under the following headings: types of literacy organization; administrative or directing agencies; language problem; community needs, awareness and co-operation; planning suitable literacy programmes; developing instructional materials; recruitment and training of teachers; supervision and improvement of teaching; evaluation of the programme; and necessary research.

TYPES OF LITERACY ORGANIZATION

In the effort to meet the needs of different situations, literacy work has been organized in various ways. A recent survey[1] indicates the four main ones.

(a) ORDINARY ADULT LITERACY PROGRAMME

This is the commonest type of all. It develops within a local area when a few adults who are unable to read and write acquire a need or desire to do so. Requests may come from members of a co-operative organization to their director; from members of a church to their minister or missionary; from certain inhabitants of a village to their spokesman; from women to a local nurse. Often the suggestion comes the other way round. For example, a fundamental education worker may suggest to a group that they could be better farmers if they were able to read. In whatever way the suggestions may arise, training is provided through the resources available in an effort to supply a genuine need which is keenly felt by a few. In the absence of a more broadly organized programme, this plan has distinct advantages.

(b) THE MASS LITERACY CAMPAIGN

This plan is commonly characterized by an intensive literacy drive. It is usually conceived by certain leaders who are convinced that both personal and group welfare would be greatly improved if more people could read and write. Accordingly, both the human and material resources needed are mobilized for a drive that may be restricted in area or duration, or both. Many different techniques are used to arouse the interest of adults: posters, radio, personal and public appeal, parades,

1. Roberts, D. B. *Types of Organization in Adult and Mass Literacy Work.* Sydney, South Pacific Commission, 1952, 10 p. (Technical paper, No. 32.) Published also in French.

demonstrations. The goal sought is ability to read and write on the part of all. All too frequently there is no follow-up stimulation and guidance to ensure that the abilities acquired play a continuing part in the life of the individual.

(c) THE PERMANENT LITERACY ORGANIZATION

This plan is organized on a long-term basis and is usually designed to attain universal literacy within a reasonable period of time, such as a generation. In some cases, however, provision for literacy training is made without setting a time-limit. The aim is then to provide literacy training whenever, and for as long as it is needed. The organization may be country—or territory—wide, or it may be restricted to a specific area or community which recognizes an urgent need to raise its literacy level. A permanent literacy organization has the advantage of being able to continue the training until functional literacy is attained and of providing various types of follow-up stimulation and guidance. Studies made in India[1] and other countries show that there is usually a marked decline in ability to read and write after short-time periods of training without any follow-up.

(d) THE 'NUCLEAR' TYPE

This is a combination of the plans (b) and (c). Instead of spreading over a whole area at the same time, as in the case of (c), it sends out teams at different times and places to carry out an intensive campaign as in (b). Such a plan has the advantage of providing experienced workers to help organize and launch a campaign. A team rarely remains in a community until its task is completed. One of its specific functions before leaving a community should be to set up a permanent body of trained personnel to carry on. Only where such steps are taken will the efforts of a team prove effective.

A detailed analysis of the above plans shows that there are three stages in the development of a literate community: the arousing of keen interest among members of the group; training under efficient teachers until functional literacy is attained; and the provision of follow-up stimulation and guidance. Any plan which fails to include all three stages is inadequate.

ADMINISTRATIVE OR DIRECTING AGENCIES

In developing an adequate literacy programme, an administrative or directing agency with vision, technical insight and resources is indispensable. All too often in the past the responsibility for literacy work has been left entirely in the hands of small self-initiated local groups. Such groups merit genuine commendation for their high purposes and effort. But results are usually far more effective when literacy programmes are stimulated and directed through the co-ordinated efforts of two types of agencies.

1. Gadgil, D. R. *Report of Investigation into the Problem of Lapse into Illiteracy in the Satara District.* Bombay, Government Printer and Stationer, 1945, 126 p.

REGIONAL, TERRITORIAL OR NATIONAL AGENCIES

Whenever possible the literacy work of a given community should be an integral part of a regional, territorial or national programme. If carefully organized, the directing agency can assume the responsibility for intensive studies of existing conditions and needs, for preparing detailed plans of action, for securing specialists to aid in the production of materials, and for providing needed guidance in local areas. There are many different types of such agencies of which we give three examples here.

A Service Commission

The South Pacific Commission was organized to render guidance and service among numerous groups of islands in the Pacific. As a first step in attacking literacy problems the Research Council of the Commission made a survey and reached the following conclusions: (a) literacy work should be related wherever *possible* to other aspects of community development; (b) it should not be pushed ahead of the felt need for literacy on the part of the people themselves; and (c) an adequate supply of reading material is essential if literacy training is to be effective. The council then drew up a long-term programme of technical assistance to territorial governments with respect to methods, organization and equipment. The main features of the plan[1] were:

'I. The conduct of a survey of literacy techniques in use throughout the world, in order to find out which are best suited for use in the area.

'II. The establishment of the South Pacific Literature Bureau, with the broad aim of stimulating the production of literature for the islanders, including special types of reading matter required for literacy teaching, and

'III. The appointment of a literacy adviser who, under the supervision of the Organizer for Island Literature, will be concerned with the preparation of materials for literacy teaching—see II—(including so-called "follow-up" literature for newly literates) and continue the study of methods—see I—by practical experimentation in the field, trying out various techniques with selected groups.'

The foregoing plan is admirably adjusted to the needs of the area served. The stimulation and help provided by the commission is convincing evidence of the value of well conceived aggressive service agencies.

Association of Territorial Agencies

A second type of over-all leadership is represented by a Conference of Provincial Representatives[2] held in June 1950, under the chairmanship of the Chief Commissioner, to consider plans for extending literacy in Nigeria. As a result of extended discussions, a so-called Literacy Scheme was proposed which made possible the development of programmes throughout Nigeria adapted to local needs and aspirations. A 'literacy scheme' was designed so as to provide for about 100,000 people representing a part or the whole of a unified social or racial group, and to be managed directly by an organizer appointed by the local administrative authorities. His duties were to organize and direct the programme in harmony with decisions reached by the Regional Adult Education Officer and the Native Administration.

Each scheme was planned to operate 30 centres at a time. Each centre was to

1. Roberts, D. B. *Types of Organization in Adult and Mass Literacy Work*, op. cit., pp. 1-2.
2. Conference of Provincial Representatives. Zaria, Nigeria, June 1950. *Report ... to Discuss the Adult Literacy Campaign, Northern Region.* Zaria, Gaskiya Corporation, 1950, 13 p.

serve groups of small towns and farming communities, or wards in large towns and cities. While it was not possible to provide classes in each particular group of dwellings, the aim was to have them within easy walking distance for everyone. As many as three classes might go on at the same time in each centre. The teachers were to be local literates who would teach a few hours each week according to a syllabus. Literacy certificates were to be granted to those who passed a standard test. As soon as a reasonable percentage of the population served by a centre had passed the test, the centre was to open elsewhere.

A Department or Ministry of Education

To a rapidly increasing extent Departments or Ministries of Education have assumed during recent years responsibility for the extension of literacy throughout their administrative areas. This is admirably illustrated in the case of the Republic of Indonesia. In order to direct efficiently the education of its adult population, the Ministry of Education, Instruction and Culture[1] set up a Department of Mass Education and approved a ten-year programme for the elimination of illiteracy, beginning in 1951. Its purpose was 'to provide the mass with a sufficient level of education, including the ability to read and write, so as to understand the immediate factors affecting their daily lives and international affairs'. The main decisions were:

To use the Roman alphabet.

To teach the basic skills of reading and writing (during the first three months of the anti-illiteracy course).

To lay the foundation of an elementary education (during the following three months).

To hold 'discussions at duly organized readers' and listeners' clubs' in order to extend elementary education.

'To provide reading matter in conformity with area and village needs through the publication of folks' magazines (both by the area and Head Office) and through the maintenance of Folk Libraries.'

To provide adult courses in which the knowledge so acquired can be applied to the enhancement of daily living.

According to the regulations which were adopted, anti-illiteracy courses can be organized by any village community, private organization, factory, commercial or other institution, 'provided that the nearest Mass Education Office is notified in advance'. Teachers are selected from those who have completed their elementary education or pass an Anti-illiteracy Instructor Course. Such courses are organized and outlines provided by the Department of Mass Education. The local programmes are under the immediate direction of Sub-district Mass Education Committees which receive a stipulated amount of government aid for each course given. Final authority for the extension and improvement of the plan is vested in the Director of Mass Education and the Officer in Charge of the Anti-Illiteracy Section.

Three types of over-all planning, guidance and administration have just been described. Scores of equally suggestive plans could be reported. Both service and administrative agencies make genuine contributions. Leaders in every area of the world where such agencies do not exist at present should work toward their establishment. All-important considerations are: the provision for the intensive study of conditions and needs within the area; the development of a plan to ensure the elimination of illiteracy throughout the area within a period of time; the setting up of agencies for the development of literacy programmes and of instructional and

1. Indonesia. Djawatan Pendidikan Masjarakat. *Mass Education in Indonesia.* (Jakarta, 1953), 199 p.

follow-up materials; the training of teachers; the supervision of instruction; the carrying on of necessary field studies and experiments; and the continual evaluation and improvement of the programme.

LOCAL COMMITTEES

While outside help and guidance are essential, the ultimate success of any literacy programme depends upon local effort. Unless a community recognizes the urgent need for literacy, is eager to acquire the necessary skills and is willing to strive to improve its status, little real progress can be made. Accordingly, a vigorous local committee consisting of leaders in all walks of community life is an essential aspect of any literacy scheme. Not infrequently it is self-created, initiates plans for a literacy campaign, and assumes full responsibility for its direction. At other times, local committees are organized by and co-operate with administrative agencies of the territory or country in planning and carrying on a literacy programme. For example, the Conference of Provincial Representatives in Nigeria proposed the setting up of local committees composed of 'responsible minded local officials' genuinely interested in community welfare, and willing to devote 'time regularly to the management of literacy schemes'. The functions of such committees were defined as follows:

To study organizers' reports and discuss with them the contents.

To place orders for materials.

To organize the distribution and sale of literature and materials.

To manage the funds available, and keep the books.

To arrange for the enrolment of classes according to the convenience of the people.

To keep a record of all certificates issued, giving a serial number to each, so that the total is always known.

To organize examinations and be represented on the examination board, and to issue certificates.

To organize internal postal services.

To appoint and dismiss instructors; to select organizers and replace them, if necessary, after consultation, through the usual channels, with the Regional Adult Education Officer.

To keep the Regional Adult Education Officer informed of the state of each scheme, through the usual channels.

To encourage the development of anything that can derive from, or follow on, the literacy schemes; lectures, discussions, English classes, etc.[1]

The actual duties which local committees assume vary widely with conditions. Such committees serve especially to arouse genuine community interest, to obtain the necessary human and material aid, to help adjust the programme to local needs, and to render administrative assistance.

GUIDING PRINCIPLES

The activities of regional, territorial, national and local agencies should be governed by certain basic principles clearly understood by all. The following were issued as guides by the Department of Social Welfare of the Gold Coast[2] in its mass literacy and education programme.

1. Conference of Provincial Representatives, Zaria, Nigeria, June 1950, *Report*, op. cit., p. 11.
2. Gold Coast. Department of Social Welfare. *Plan for Mass Literacy and Mass Education*. [Accra] 1951, 20 p.

Concentration of effort is essential to success. The best methods are an 'all-in' campaign over a wide area for a short time as regards literacy, or a prolonged effort concentrated on a village or a group of villages as regards demonstration of community development.

Inspired leadership is essential, starting at the top by the leaders of political and moral thought and given ungrudgingly at every level by all the people of the country in positions of authority and respect.

Leadership must call forth voluntary effort and stimulate local self-help for its own sake, because it is demoralizing to do for people what they can do for themselves; for economy's sake, because a campaign by paid effort would be intolerably expensive, and for efficiency's sake because experience elsewhere shows that it would be uninspired, ineffective and the negation of progress.

The right approach to adults must be at the basis of the whole programme and be emphasized in the training of voluntary leaders. An adult cannot be made to learn; an adult learns quickest and most surely when he knows why; he can only be persuaded to accept or to do what does not conflict with his past experience and what does relate to his future purposes in life.

Ideas cannot be imposed on a village; the dynamic force of self-development will only grow where villages are encouraged to do what they recognize to be of importance, or what they want to do; this is the surest and quickest way of improving rural conditions 'at grass root level'.

The voluntary effort of local leaders becomes effective when it is organized, supported and trained by a sympathetic and devoted official staff. Training of all village leaders and of all official staff must be regular and continuous.

Literacy in the vernacular must form an important feature of the programme in every area. It must be supplemented by other needed types of training.

Reading material must be directed first towards the needs and interest of villagers, and later of townsmen; it must be designed for enjoyment as well as instruction, and it must be readily available in quantity.

A critical analysis of what has been achieved must be attempted at the conclusion of every campaign, or at other regular intervals, for the purpose of improving mass education by the lessons of experience.

The above principles are very inspiring. Each area and committee should be guided by an equally cogent set in keeping with its own needs and conditions.

COMMUNITY NEEDS, AWARENESS AND CO-OPERATION

Since literacy is a means to broader ends the training provided in any community should be planned in the light of all the conditions that affect the status and welfare of that community. The essential facts have been outlined in previous reports.[1] We make the following suggestions:

- The characteristics of the larger geographic, social, linguistic and cultural area of which the community is a part.
- The extent and nature of the contacts with other groups.
- The history and traditions of the group.
- The social, political, economic and legal structure of the area.
- The various forces—social, political, economic, religious, educational—that operate among and within groups.

1. Unesco. *Fundamental Education: Description and Programme.* Paris, 1949, pp. 52-8. (*Monographs on Fundamental Education,* I.)

The specific problems faced that retard group progress and are detrimental to individual welfare, e.g. poor health, insanitary conditions, sub-minimal economic status, ignorance, low moral standards.

The nature of the activities, attitudes, roles, values and rewards within the group and the forces that influence them.

A basic survey of the type suggested should be made by a small team of experts, headed preferably by a social anthropologist and including specialists in other subjects such as medicine, nutrition, sanitation, agriculture, soil conservation. The techniques used should include first-hand observations, conferences with key people, the analysis of accumulated data or recorded information, and interviews with representative members of the group. The value and technique of conducting interviews are discussed at length in *The Use of Social Research in a Community Education Programme.*[1] A detailed outline of an interview questionnaire used in a survey in Puerto Rico is included, which may well serve as a guide in developing plans for similar inquiries elsewhere. The data assembled should be interpreted in terms of the essential steps for promoting individual and group welfare.

In addition to the basic survey described above, detailed facts should be collected bearing directly on the need for literacy training, and more particularly, inquiries concerning the following:

The extent of illiteracy.

The current role of reading and writing in the community.

Other purposes that literacy should serve in promoting individual and group welfare.

Nature and extent of the reading materials available for meeting current and probable future needs.

What proportion of the young people and adults actually use the reading materials available.

The extent to which those who are illiterate are keenly interested in learning to read and write.

The forces that favour and those that are opposed to efforts to extend literacy.

The actual and potential resources, both human and material, that can be used in any constructive effort undertaken.

In some cases this part of the survey is made by the staff who make the basic regional survey or by 'group organizers' who are assigned, as in Puerto Rico, to specific areas. In other cases such individuals provide leadership and guidance to a local group. Two advantages attach to the latter plan: first, a survey is most revealing to those who participate in making it, therefore community leaders, including those who will give the literacy training, should be primarily responsible for the local survey; secondly, the effort of leaders in the community to secure needed information will arouse less suspicion and opposition than if the local study is attempted by outsiders. This is particularly true in the case of backward communities where suspicion and resistance often defeat otherwise well conceived efforts.

COMMUNITY AWARENESS

As illuminating facts come to light, every effort should be made to promote community awareness of desirable improvements and of the advantages to be derived from literacy training. The importance of this cannot be over-emphasized. Expe-

1. Puerto Rico. Division of Community Education. *The Use of Social Research in a Community Education Programme;* a report prepared by the Analysis Unit of the Division..., and the Survey Research Centre of the University of Michigan. Paris, Unesco, 1954, 50 p. *(Educational Studies and Documents,* No. X.)

rience has shown repeatedly that the success of any constructive project depends primarily on a clear recognition of needs, by most, if not all, members of a community. There are different ways of promoting such awareness.

As pointed out in Chapter I, many fundamental education workers believe that initial effort to promote literacy should be related to a specific and urgent need of a community, such as the raising of better crops. Through group conferences and demonstrations the fact is established that better crops can be produced. At the same time the distinct advantages of ability to read and write in attaining that end are made clear. When the value of literacy has been demonstrated in one area of activity, other urgent problems are attacked in a similar manner. In course of time, all members of the community become keenly aware of both the personal and group advantages that may be secured through literacy training.

Other communities attack the problem by giving publicity to the conditions revealed by the survey as rapidly as they are identified. They are discussed first with members of the community who hold position of leadership and influence among specific groups. As soon as these key people are convinced they are encouraged to discuss the problems raised and the proposed measures for overcoming them with their associates. Community leaders also begin to discuss these matters in the market place, the public square and other community centres, and if there is a newspaper, short articles on them begin to appear daily or weekly. As interest spreads, meetings are arranged at which the whole problem of community betterment is discussed at length. In some cases attention is focused at first upon some specific and very urgent need. In other cases, the various problems are considered as a whole. Always, however, the importance of literacy training is emphasized.

No perfect method can be suggested for promoting awareness of needs. The method varies with the nature of the community, its problems, the techniques normally used in developing public opinion, and the agencies of mass communication available. Local leaders should make a careful study of various possibilities and adopt a plan which seems most likely to promote a growing awareness of needs and a genuine desire to meet them.

COMMUNITY EFFORT

As community awareness develops, efforts should be made to enlist the active co-operation of as many adults as possible in securing improvements. Results are more widespread and permanent when the whole community co-operates in attaining desired ends. As a rule, the members of a community are willing and eager to attack and solve their problems through their own effort, once they are convinced of the need for doing so. For this reason the legal provision of 1949, relating to community education in Puerto Rico, included the following statement: The object of community education is to give to the people forming a community 'the wish, the tendency and the way of making use of their own aptitudes for the solution of many of their own problems of health, education, co-operation and social life'.[1]

As regards the need for literacy, community effort takes many forms. Those who are literate discuss and demonstrate the advantages of ability to read and write. Those who have recently attained functional literacy describe the practical results and satisfactions derived. Those who are working in industry report on the need for literacy in getting jobs and the additional opportunities for advancement open

1. Puerto Rico. Division of Community Education. *The Use of Social Research in a Community Education Programme*, op. cit. p. 5.

to those who are able to read and write effectively. Literate members of the community also serve as teachers after the necessary preliminary training.

Where a building is not available for literacy classes, all members of the community help to build one. There is general agreement among leaders in community development that all the materials and work required to construct a literacy centre should be provided by the local group. When the members of a community co-operate in these and other significant ways, the chances of success are greatly increased.

PLANNING AN ADEQUATE LITERACY PROGRAMME

Parallel plans should be developed for all aspects of the literacy programme. This is a task that requires clear understanding, vision and courage. In the discussion that follows we draw attention to three items: the technical assistance needed; basic problems that must be considered; and the importance of a guide for all who participate in efforts to raise the literacy level of a community.

TECHNICAL ASSISTANCE NEEDED

Because of the very nature of many of the problems, technical assistance is needed in planning the details of a sound literacy programme. For this reason most local, regional and national communities secure the help of a literacy specialist when drawing up a programme for the area to be served. Literacy specialists are given various titles and function in various ways.

Unfortunately, many local areas do not have access to survey specialists and technical advisers provided by governmental agencies. In such cases the local committee secures, if possible, the services of a literacy specialist who, in the light of all the facts available, outlines the kind of programme which in his judgment should be followed. As soon as general plans have been reviewed and approved by the local committee, they are worked out in detail by the literacy specialist who usually serves also as director of the literacy programme. Among the various responsibilities assigned to a director, the most important are:

To plan the literacy programme and prepare a bulletin or guide describing its various features.

To select or prepare instructional materials.

To select the teaching staff and provide preliminary training.

To direct the enrolment of classes and the keeping of records.

To supervise teaching activities, providing individual help and needed in-service training.

To carry on a continuous study of the results obtained, including the preparation of suitable tests.

To make changes in various aspects of the programme, as and when desirable.

To decide on the qualification of students for certificates and the appropriate occasions for granting them.

To submit a progress report regularly to the local committee, or other directing agency.

To assume all other responsibilities which the local situation calls for.

BASIC ISSUES TO BE TACKLED

In planning a sound programme, the literacy director is confronted by a series of exacting demands. The programme must be adapted to the specific needs of the

community, it must be adequate in scope, and it must be sound in principle. Furthermore, the various parts of the programme must be worked out so fully and explicitly that all who are to participate will be fully informed and can play their respective roles effectively. In meeting these demands such issues as the following must be studied carefully:

What are the specific goals of literacy training in the community?

How is it related to other aspects of community development?

How and at what stage in the community development programme should literacy training be introduced?

How many members of the community need literacy training, and at what levels should training be provided to ensure functional literacy on the part of all?

What kind of literacy centre, how many teachers, and what additional material and human resources are needed to ensure the success of the programme?

How can a compelling interest in learning to read and write be developed on the part of all who need training?

What is the nature, scope, organization and content of the literacy training needed?

What characteristics of the form and structure of the language influence progress in learning to read and to write, and what specific teaching procedures should be adopted in each case?

What kinds of instructional materials are essential—basic primers and readers, workbooks, audio-visual aids, teachers' manuals, supplementary reading materials and library or follow-up materials?

To what extent are instructional materials available or must they be prepared?

What principles should guide in selecting or preparing materials?

How can the instructional materials be prepared most quickly and effectively?

What are desirable qualifications on the part of teachers and how can they be recruited and trained?

What steps should be adopted to ensure tactful and effective supervision of class teaching and continued improvement of teachers in service?

How can the effectiveness of the literacy programme be determined?

What plan should be adopted to ensure the continuous revision of the programme in the light of tested experience and research?

The above questions will vary in importance in different communities, depending on the particular conditions. Other problems will also arise which are peculiar to certain communities. As rapidly as they are identified they should be discussed with the local committee. Moreover, plans formulated by the director regarding any particular aspect of the programme should be reviewed by the committee for two reasons: in the first place, most members of the committee will be able to give advice on the appropriateness and practical nature of many of the proposals made, and secondly it is highly important that committee members should be kept fully informed and have their ideas challenged at each stage during the planning period. Only in this way will they understand the plans fully, have confidence in them, and be prepared to co-operate whole-heartedly in carrying them out.

A LITERACY GUIDE

As plans mature a simple, clear statement should be prepared outlining the major aspects of the programme and the essential steps in implementing it. This statement should be a blueprint of the literacy programme, showing the way it will operate, the kinds of co-operation needed and the responsibilities of all who participate. It should be used as the basis for all public discussions of plans, for newspaper

publicity, and for conferences with individuals. It is highly desirable that such a statement be mimeographed or printed so that all literate members of the community concerned may have a copy to study and for use as a guide in any support or co-operation they may give. Reference will be made later to the need for a teachers' manual which serves a more specialized purpose.

DEVELOPING INSTRUCTIONAL MATERIALS

It will not be possible in this chapter to discuss in detail all of the problems connected with the development of a literacy programme. Among those that should be considered, the selection and development of instructional materials is one of the most important. There are two reasons for this. Many of the materials used in the past have failed to meet current needs adequately and have often been based on unsound principles. Suitable intructional materials are not at present available for use in many language areas and communities, and must be developed wholly or in part before literacy training can be given. Because of the huge amount of work, expenditure and technical knowledge and skills involved, most of the instructional materials needed should be prepared by central agencies serving large areas. If no such agencies exist, the literacy director faces the responsibility of preparing at least the initial materials to be used.

A GENERAL VIEW OF THE READING AND HANDWRITING PROGRAMME

Whoever attempts to prepare instructional materials must have a clear understanding of the literacy programme as a whole, its organization into stages or periods, and the kinds of instructional materials needed. These matters were discussed in detail in Chapters VIII and XI. A bird's-eye view of certain main features of a sound literacy programme is given in tabular form overleaf.

The programme is divided into four stages which proceed progressively from the time training is begun until functional literacy is attained. Each stage concentrates on the development of certain understandings, attitudes and skills which are of paramount importance in acquiring functional literacy. Each of the four stages includes a programme in reading and in handwriting which are carried out in conjunction. Although the close correlation between reading and writing is recognized and provided for throughout the literacy programme, the unique character of each activity is clearly recognized. For example, in teaching adults to read wide use is made of the motives which lead them to want to read and the kinds of materials they wish to read. Similarly, instruction in handwriting begins with the motives which stimulate adults to want to learn to write and makes use from the beginning of situations in which it serves useful purposes. As soon as enough skill in handwriting has been acquired, it is used as an aid in learning to recognize and master the new words encountered in reading lessons.

PREPARATION OF READING MATERIALS

Within the limited space available, it seems advisable to draw attention to the chief problems met with in preparing primers and similar instructional materials for use during Stage Two and basic and supplementary readers for use during Stage Three. Owing to the varied nature of the problems, the co-operation of the following

General Scope and Organization of a Co-ordinated Programme of Reading and Handwriting for Adults

READING	HANDWRITING
Stage One: Preparing to learn to read and write	
Aim: To arouse keen interest in learning to read and to provide needed experiences which will enable adults to learn to read with reasonable ease. Duration: One to several class meetings prior to Stage Two.	Aim: to arouse keen interest in learning to write and to provide needed experiences which will enable adults to learn to write with reasonable ease. Duration: same as for reading.
Stage Two: Learning to engage in simple reading and writing activities	
Aim: To develop the basic attitudes and skills involved in reading simple material easily for meaning. Goal: Ability to read independently and for meaning any material limited in vocabulary to the 300 most frequently used words in daily conversation. *Materials:* primers and readers including 150 pages of reading material; also related vocabulary cards, filmstrips, work books, teachers' guides, and tests. Duration: 24 to 40 lessons.	Aim: to develop the basic skills involved in very simple writing activities through the use of the simplest form of handwriting the language provides. Goal: ability to write and spell the most frequently used words in daily conversation and to use writing in meeting a few very simple practical needs. Materials: a handwriting guide for teachers outlining the nature of early writing activities and the methods to use; model sets of the letters, both small and capitals, for each student. Duration: same as for reading.
Stage Three: Making rapid progress in mastering basic skills	
Aim: to promote rapid mastery of the basic skills involved in good oral reading and thoughtful silent reading. Goal: ability to read easily for meaning any material written for the use of all literate members of the community and limited to the 2,000 most frequently used words in the language. Materials: basic reading material, work books, teachers' guides, filmstrips, and tests; supplementary readers, and library books. Duration: 72 to 150 hours.	Aim: to improve the skills of handwriting and to acquire the understandings needed to use handwriting as an aid in meeting daily needs. Goal: ability to use handwriting effectively in the various writing activities in which all literate members of a group engage. Materials: directions for teaching handwriting at this level; copies of all forms used in the community which adults fill out from time to time; a guide to letter-writing for adult use. Duration: same as for reading.
Stage Four: Acquiring greater maturity in reading and writing	
Aim: to develop the competencies and interests that characterize a mature reader. Materials: a representative sampling of the varied types of reading material that the culture provides. Duration: as long as may be needed.	Aim: to develop the competencies needed in meeting a wide range of personal needs through handwriting and in giving creative expression to one's ideas. Materials: a guide to growth in written expression. Duration: whatever time may be needed.

types of specialists should be enlisted, if possible: a fundamental or adult education worker familiar with the dominant interests and motives of the group; a linguist or language specialist familiar with the characteristics of the language which influence progress in learning to read; a psychologist who understands the ways in which adults learn; a successful teacher who knows how to organize teaching situations to promote rapid progress; a good writer of simple adult reading material; an illustrator who knows how to use pictures as an aid in promoting word recognition and a clear grasp of meaning; and a specialist in typographical matters.

The fact is recognized that where instructional materials are prepared locally, one or more individuals will have to supply all the requisite knowledge and skills. For their guidance various suggestions are offered in the sections that follow and reference[1] is made in the footnotes to several relevant discussions.

The Preparation of Primers

Primers occupy a strategic place in a literacy programme. Their purpose is to provide for the orderly development of a thoughtful reading attitude, skill in recognizing words accurately and independently, and ability to grasp the meaning of what is read. As already mentioned, 150 pages—more or less—of carefully prepared materials are needed to introduce and provide for the mastery of about 300 words of high functional value in the everyday language of adults. Literacy leaders in many parts of the world recommend that this material be printed in a series of three, four or five booklets. One of the distinct advantages of the use of short primers is that each can be finished in a relatively short time. As a result adults are more keenly aware of the progress they are making, and thus acquire confidence in their ability to learn. This leads as a rule to greater effort.

Without doubt the most widely debated issue in preparing primers is the best approach to make in developing basic reading skills. Stated in round terms the question is: shall emphasis be given at the beginning to meaningful material and the development of a thoughtful reading attitude, or to the elements of words and the development of independence in word recognition. As shown in Chapter VI, both aspects of reading should be emphasized from the beginning. Through the use of words, phrases and short sentences accompanied by appropriate pictures, interest can be aroused, a thoughtful reading attitude developed, and progress made in ability to grasp the meaning of what is read. As soon as words are recognized in a meaningful context, they can be analysed into their elements and skill developed in combining them to form other words in oral vocabulary and in recognizing new words as they appear in reading lessons.

1. Articles in *Fundamental and Adult Education; a quarterly bulletin:* (a) Griffin, Ella W. 'Writing Graded Textbooks for Literacy Training', Vol. VI, July 1954, pp. 102-8. (b) Notebaart, J. C. 'Literacy Primers', Vol. III, April 1951, pp. 79-81. (c) Stolee, Peter. 'Building a Bridge to Literacy', Vol. III, April 1951, pp. 58-72. (d) Townsend, Elaine Mielke. 'The Construction and Use of Readers for Aymara Indians', Vol. IV, October 1952, pp. 21-5. (e) Wallis, Ethel E. 'Using Linguistic Analyses in Literacy Methods in Mexico', Vol. IV, October 1952, pp. 16-21.
   Gudschinsky, Sarah. *Handbook of Literacy.* (Norman, Okla.) Summer Institute of Linguistics, University of Oklahoma, 1953, 85 + vi p.
   Neijs, Dr. K. *The Construction of Literacy Primers for Adults.* Noumea (New Caledonia), South Pacific Commission, 1954, 72 p., illus.
   Rodríguez Bou, Ismael. *Suggestions for the Preparation of Reading Materials.* Unesco, Paris, 1949, p. 29. (*Occasional Papers in Education,* No. 2.)
   Townsend, Elaine Mielke. 'Accelerating Literacy by Piecemeal Digestion of the Alphabet', *Language Learning,* Vol. I, July 1948, pp. 9-19.
   Wallis, Ethel E. and Gates, Janet B. *Outline for Primer Construction.* Glendale, Calif., Summer Institute of Linguistics, Inc., 1948, 47 p.

It has often been assumed that each word introduced in a reading lesson must be analysed into its elements immediately. This is by no means true. In fact, many of the most frequently recurring words in some languages are more or less non-phonetic and must be learned as sight words. By determining the order of importance of the various elements of words, they may be emphasized in an orderly manner as words containing them appear in the reading lessons.

The content. The content of most lessons in primers should consist of a combination of both picture and verbal text. It is highly important that the ideas presented should relate to common and vital experiences of adults. There are ardent advocates of the use of various specific types of content in primers. Reports from different parts of the world indicate that there is a wide variety in the kind of content that is most appreciated. It follows that those who prepare primers should make a careful study of the common interests of adults in the particular area concerned. In doing so the fact should be kept in mind that initial lessons have been successfully organized in many parts of the world around interesting aspects of the home and family life of adults. Such material is based on common experiences, motives and problems, makes use of the most frequently used words in daily conversation, and ensures vivid meaningful associations with them. It should be followed later by units relating to other vital aspects of personal and community life.

Form and style of writing. The content of each lesson should be presented in the form of simple episodes, true-to-life stories, and vivid descriptions of activities that are of immediate concern to adults. This can be done even at the beginning through the combined use of verbal text and illustration. Experience shows that the use of the same characters throughout the whole or a large part of the primer has distinct advantages. It ensures a unified, expanding body of ideas, and the content of successive lessons is built upon a familiar background, thus promoting both word recognition and a clear grasp of meaning. As a result the student acquires a growing feeling of familiarity with the situations described and increasing confidence in his ability to read the next lesson.

The text should be simply written, in short sentences, and with no unnecessary phrases. The style should be varied, but always within the familiar adult pattern. The episodes and stories should be clear, interesting and often humorous. As soon as the vocabulary permits, conversation may be included. The language used should be natural to the characters. The characters themselves should be true to life, meet the problems that adults normally do and reflect the traits that are generally admired. The ideas in a lesson should be limited in number and should be so presented as to arouse vivid images and associations.

Vocabulary. The vocabulary at the primer level should include about 250 of the most frequent words in the daily conversation of adults, plus about 50 additional words needed in expressing vital content. To a large extent these words will also be those of greatest frequency in adult reading materials. They should be introduced at the rate of about two words per page, on the average with no more than three new words on any page. Each word should be repeated 15 or more times as soon as possible after it is introduced and a total of 50 or more times during Stage Two. This is the minimum number of repetitions for ensuring instant recognition. To provide for repetition primers should include as much simple reading materials as space permits.

Size of type. The size of type should be larger than that commonly used in adult reading material, but not as large as that used in primers for children. As a rule,

14 or 16 point type, with the usual interword and interline spacing for that sized type, is suitable for adult primers. The advantage of the use of a larger type than usual is that it aids in making visual discriminations between word forms and the elements of words during the early stages of learning to read.

Pictures. The chief use of pictures at the primer level is to add meaning to the words and to help the reader to recognize words. Consequently, there should be a close correspondence between the pictures used and the content of the lesson. Carefully drawn black and white pictures are usually very effective. Reports from different areas vary concerning the value of coloured pictures. Some leaders state that they are very attractive to adults and have been used very successfully. Others maintain that they are distracting. The writer knows of no scientific evidence on this issue that has general application.

Word Cards, Workbooks, Filmstrips, Games, Tests

Whereas, formerly, the primer was the only basal reading material used in literacy classes, now various supplementary aids are widely used. A set of word cards is one of the simplest to prepare. Each word in the primer is printed on thin cardboard in letters about an inch high so that they can be read easily by all members of a class. If word cards are not available in printed form, they can be prepared locally by writing the words on cardboard in print script. Phrase cards can also be prepared which include oft-repeated groups of words. By putting down words that have been previously introduced the teacher can tell which ones are not as yet properly known and which students are in need of additional drill in them. Word and phrase cards can be used also in building sentences which are exposed on a shelf in full view of the class. As the teacher names particular words or phrases in the sentences thus built the students identify them and take them down from the shelf.

The use of workbooks as a supplement to primers has increased rapidly during recent years. They provide practice in many specific aspects of reading. Examples of workbook exercises are given in Figure 14, page 179. They may be printed in booklets or pads, or may be duplicated locally for use in particular classes. As a rule, practice exercises should be prepared to accompany each reading lesson. Before doing so a careful study should be made of the new subject matter introduced in the lesson. Exercises should then be given to promote ability to recognize new words, to divide words into their elements, to combine these elements into words, to complete sentences by filling in gaps with known words, to grasp the meaning of sentences or short passages, or to master unique features of words, such as marks which indicate variations in sound, stress or tone. After the reading lesson the students should be directed to do the appropriate exercises for that day. The responses of each student should be carefully checked, the necessary corrections made, and further practice given if necessary.

If audio-visual aids are available, effective use can be made of filmstrips. Practically all types of exercises appropriate for a workbook can be presented on filmstrips, which are used largely for group work rather than for work by individuals. When teachers know how to prepare the strips, they provide almost unlimited opportunity for practice exercises. They can also be advantageously used in presenting simple supplementary reading material based on the reading vocabulary already introduced. As an additional aid there are games of various types. A description of a word lotto game is given on page 166 of Chapter VIII.

Finally, tests should be prepared which can be given on the completion of each primer. They should measure progress in each of the important aspects of reading

that have been emphasized. Useful types of tests are described on page 171, Chapter VIII, and examples are given in Figure 16. Such tests are very useful for finding out how well the various students have mastered the essential skills, what are the aspects of reading that require most emphasis in the immediate future, and which students need individual help. When teachers are provided with such tests they can use them as guides in preparing other tests to be given at frequent intervals. They are thus able to know at any time what the capacities and needs of their students are.

The Teachers' Manual or Guide

A teachers' manual or guide should describe not only the organization of classes and the materials and methods of teaching to use, but also the step-by-step treatment of the lessons. The need for such guides is urgent in all areas where experienced, competent teachers are not available. This means that the authors of practically every primer should at the same time furnish a manual or guide for the use of teachers. If a certain community selects a primer which has no accompanying guide, the literacy director, with the help of a competent teacher of adult reading, should prepare one.

Several guides[1] are now available which may be usefully studied before preparing one adapted to the needs of a particular area or community. The *Teachers' Guide* used in Mysore, India, comprises the following sections among others: a general survey of the programme for teaching adults to read and write; pre-literacy work or study of the community before classes begin; the classroom and equipment essential; steps in preparing to teach; activities that should be engaged in apart from literacy, such as songs, dances, games and a wall newspaper; the purpose and nature of questioning; the use of book illustrations; the kinds of records to keep; detailed procedures in teaching specific lessons; the use of supplementary books; how to determine and record student progress in reading and writing.

It is particularly important that a pattern of teaching be adopted which ensures emphasis on all essential aspects of teaching. In Chapter VII it was suggested that the teaching of each lesson should be divided into three parts:

1. Preparatory steps aiming to awaken interest in the reading of a lesson, develop the background for understanding what is read, and introduce the new words of a lesson in meaningful settings.
2. Reading the lesson so as to promote a clear grasp of the meaning of what is read, interpret the ideas presented in the light of the reader's experience, and see their use or application.
3. Supplementary practice designed to clear up difficulties met with in the lesson, provide practice in specific aspects of reading, and develop the new skills required for progress in reading.

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1. Unesco. Group Training Scheme for International Training in Fundamental Education, 1st, Mysore (India), Dec. 1953-July 1954. *Teachers' Guide.* Mysore, 1954, 43 p.

Gudschinsky, Sarah, *Handbook of Literacy*, op. cit.

Laubach, Frank C. *1949 Supplement to Teaching the World to Read.* A complete set of lessons in the Shona language. The Committee on World Literacy and Christian Literature of the Foreign Mission Conference of North America, 156 Fifth Avenue, New York City.

Puerto Rico, Consejo Superior de Enseñanza. *Educación de adultos, orientaciones y técnicas.* Río Piedras, Puerto Rico, Universidad de Puerto Rico, 1952. (*Publicaciones pedagógicas*, Series II, 1952, No. B.)

Whipple, Caroline A., Guyton, Mary L., Morris, Elizabeth C. *Manual for Teachers of Adult Elementary Students.* United States Office of Education, Department of the Interior, Washington, D.C. (Prepared for the American Association for Adult Education.)

Activities that may usefully be incorporated in each part of a lesson are described more fully on pages 166-7 of Chapter VIII. The fact should be emphasized that all three types of activities mentioned there do not always take place on a given day; One, two or three days may be required to complete a given lesson. The guide should suggest how and when the various supplementary aids, such as word cards, workbooks, filmstrips, games and tests should be used. In other words, a well prepared guide gives the teacher all the information needed to ensure a carefully co-ordinated, well taught lesson.

PREPARATION OF READING MATERIAL FOR STAGE THREE

Formerly, little or no instructional material was used, other than primers, in teaching adults to read. Experience has shown that much additional training is required to produce functional literacy. The materials needed during Stage Three include basal and supplementary readers, workbooks, filmstrips, tests, library books for free reading, and a teachers' manual or guide. We propose to deal here, in particular, with the preparation of basal and supplementary readers.

Basic Readers

The purpose of basic readers is to develop the ability to read any material written in the vocabulary of daily usage or in the words most frequently used in adult reading material. Reports from different countries indicate that such a vocabulary varies between about 1,500 and 2,500 words. Basal readers, however, may be limited to about 700 new words which are introduced in 250—or preferably 350—pages of content. These words should be so selected that they provide the foundation for the larger vocabulary referred to. Because of the size of the task, the varied problems involved, and the cost of printing, these readers should be made to serve a wide area. The task of preparing them should be assumed by regional, territorial or national agencies, by literature bureaux, or by publishing houses with help from literacy experts and teachers.

The content of readers, like that of primers, should relate to things, events and activities that are of vital interest to all adults. Such items differ to some extent in different language and cultural areas of the world. Among the interests that seem to be more or less universal are family and neighbourhood life, the rearing and education of children, the making of a living, community problems, the duties of a good citizen, the history of one's country or race, humorous stories, fables, folklore, proverbs, and the wise sayings of sages. A careful study should be made of the dominant interests of the group to be served and a well-balanced selection made that will arouse the interest and hold the attention of all. As pointed out at a literacy seminar in Rio de Janeiro, the content of readers should take into account 'the life pattern of the people, where they live, what they do, what they have, what they believe, what they are. From this the materials can go forth into new thought ways and living norms'.[1]

The text should be written simply, clearly and in the everyday language of adults. While familiar forms of expression should be used, the language of the readers should be graded slowly but steadily upward, thus providing standards of good usage. Indeed, readers may help to build up a more widely used common language among different groups in an area. Characters should be selected which are appropriate

1. *Objectives, Methods and Materials of Literacy Teaching*. Unesco, p. 8. Sem/Rio/9/0/PEMA III.

to the theme dealt with and should be true to life. The material may be in the form of episodes, stories and simple narratives. Both conversation and dialogue may be included. Varied styles of writing and sentence patterns add greatly to the attractiveness of a reader.

The 700 new words should preferably be introduced at an average rate of two words per page, and not more than three per page. The 250-350 pages of content should be printed in the form of two or three readers. Each word should be repeated 15 to 20 times shortly after it is introduced, and at least 50 times in the reader in which it is first used. This amount of repetition is essential to develop instant recognition of words and ability to focus attention on meaning while reading.

Pictures should be used frequently throughout the basal readers. As a rule, one picture or more should be included in each story to stimulate interest and provide a concrete setting for the content. Since the stories will increase gradually in length, the amount of space occupied by pictures will gradually decrease. The purpose and characteristics of good pictures in readers are the same as those in the case of primers.

The size of type used may be gradually reduced to 11 point type.

Supplementary Reading Material

Paralleling the use of basal readers, adults should have access to supplementary material which they can read independently. It should be carefully graded in terms of the vocabulary of the basal readers and should gradually extend that vocabulary to a total of 1,500-2,500 words. As emphasized at a recent literacy conference,[1] supplementary reading materials serve at least three important purposes: they promote the continued development of basic reading skills; they stimulate the formation of the habit of reading regularly; and they provide adults with an effective instrument for the acquisition of knowledge and the use of leisure time.

A minimum of from 250 to 350 pages of supplementary material is desirable for use in literacy classes. Since such material can be used to great advantage long after class instruction ceases, there is scarcely any limit to the amount which should be made available. In preparing supplementary reading material, the following rules should be observed.

The subject matter should be of vital interest to adults and should include such items as good health, sanitation, the rearing of children, methods of producing better crops, earning a living, how to make certain things, the building of a better community, the duties of a good citizen, the lives and deeds of great leaders, simple historical accounts, folklore, humorous stories, and selections which enhance the spiritual life of the reader. The list of items will vary with different cultural areas and can be greatly extended. As a rule, the material relating to a particular theme should be published in a separate booklet varying in size from 12 to 60 or more pages.

The material should be simply, clearly and attractively written, the language used in keeping with the situation described. Words and illustrations should summon up vivid mental pictures and recall experiences in the life of the reader: this is essential if he is to understand and interpret what he reads through his own effort.

The vocabulary used in supplementary readers should consist largely of words already introduced in the basal readers. However, from two to three new words that are essential in presenting a story or description may be introduced on each page.

1. *Summary: Preliminary Report of Conclusions and Recommendations* (submitted to the participants for revision). Round table on Fundamental Education Materials for Adults, held in Washington, D.C., 24-26 June 1953, Division of Education, Department of Cultural Affairs, Pan American Union, Washington, D.C.

Every effort should be made to restrict the new words used at any time to those which can be pronounced independently through the use of the word attack skills previously developed in class. Some devices should be adopted for gauging the level of progress in basal instruction needed by adults before attempting to read a given booklet.

Good pictures at frequent intervals are very desirable. Use may be made of 11 point type or that normally used at the adult level in the area concerned.

It will not be possible here to discuss the preparation of reading material at greater length. For additional suggestions, we refer the reader back to Chapter VIII. Chapter XI will also prove helpful in preparing a guide for teaching handwriting and an exercise book for developing of handwriting skills.

RECRUITMENT AND PREPARATION OF TEACHERS

One of the most serious handicaps to the promotion of literacy in most communities is the lack of an adequate number of qualified teachers. Formerly, when the teaching of reading was largely limited to the development of the skills of word recognition, those who were in process of acquiring such skills were often used in teaching others to read. Since the teaching of reading is far more broadly conceived today and aims to promote functional literacy, such teachers are no longer felt to be wholly adequate.

ESSENTIAL REQUIREMENTS

The literacy requirements adopted by Indonesia[1] in its anti-illiteracy programme are the minimum that should be accepted anywhere today. According to the regulations issued by the Director of Mass Education, any teacher should have completed an elementary education or passed an anti-illiteracy instruction course. Both a reasonably high level of literacy and specific preparation for teaching are assumed. In addition, many desirable personal qualities have been emphasized in recent discussions.[2] For example:

Physical, mental and emotional maturity to ensure 'a sense of balance, security and understanding'.

'Creative power that finds expression in imagination, curiosity, enthusiasm and the spirit of growth'.

'A consuming interest in people', ability to 'create an atmosphere of friendliness and understanding', and willingness to act in harmony with the principles underlying good human relationships.

Capacity to enlist interest and co-operation.

Tact and resourcefulness.

Character and integrity that is highly respected by all who know the teacher.

The following aspects of professional ability are also important:

A clear understanding of the aims of literacy teaching.

Wide familiarity with literacy materials and their use in the attainment of literacy and related aspects of personal and community development.

A clear recognition of the motives and steps involved in the adult process of learning.

1. Indonesia, Djawatan Pendidikon Musjarakat. *Mass Education in Indonesia*, op. cit., p. 32.
2. Griffin, Ella Washington. *Lets Help the Ten Million*, op. cit., p. 9.
   Isidro, Antonio. *The Use of the Vernacular in and out of School in the Philippines*. Quezon City, 1951, pp. 95-6.

A broad understanding of different methods of teaching and their relative advantages and limitations.

Insight into the nature of individual differences and the types of adjustments needed in meeting them.

Familiarity with the method of testing the efficiency of teaching.

Skill in teaching.

METHODS OF RECRUITING AND TRAINING TEACHERS

In areas where a fair proportion of the members of a community are already literate, efforts should be made to enlist their co-operation as teachers of literacy classes. As soon as a group has been selected, training should be given by the local literacy director, by the appropriate officer of the region (such as the anti-illiteracy officer in the Department of Education in Indonesia), or by teacher-training institutions. In Nigeria, the organizer for the local area gives a course for those who are to teach literacy classes. He is 'assisted either by a representative of the Adult Regional Education Officer or by a Visiting Teacher who has had experience of other Schemes in the Province'.[1] Estimates concerning the time required for a training course vary from one to four months or more, depending on the intensity of the training given. During the course, those in training should assist a highly competent literacy teacher and gradually assume full responsibility for class teaching under his direction.

In some communities in which there are very few literate adults the following procedure has been used successfully. A careful selection is made for the first literacy class of those members of the community who give promise of ability to learn rapidly and who express willingness to become teachers. They are then given intensive training by the literacy director or a competent teacher until functional literacy is attained. A second literacy class is then organized. While the first group attend a literacy instructor's course they also observe the teaching of the second literacy class. As fast as they gain familiarity with classroom routine they are assigned specific responsibilities, such as giving word recognition drill, correcting workbook exercises, and giving extra help to individuals. As their ability increases, so broader responsibilities are assigned to them, until they are able to plan and teach an entire lesson. Through the use of such methods many communities are now making rapid progress in providing a staff of trained teachers.

Teacher-training and other higher institutions in some countries are also co-operating in the preparation of literacy teachers. For example, Allahabad Agricultural Institute at Allahabad, India, is providing preparatory training for students who spend a part of their time in directing community development projects and in teaching literacy classes. Dr. Frank Laubach has recently arranged short training courses for those who are to assist in various literacy projects under his direction. He insists that those who are to teach 'must know all that is to be taught and must be prepared to say the right thing at the right time in teaching'. Such agencies as the Kennedy School of Missions of the Hartford Seminary Foundation, Hartford, Connecticut (U.S.A.) are providing training for all who plan to do field work in such extremely diverse areas as Africa, India, the Moslem countries and Latin America. Problems relating to the following topics among others, are studied: the relation of literacy to fundamental education; a survey of current needs and problems; the basic psychology of adult learning; the nature of the reading process; reading readiness; the language experience approach to reading; available reading

1. Conference of Provincial Representatives, Zaria, Nigeria, June 1950. *Report*, op. cit., p. 9.

materials; the preparation of basal readers; method of teaching; aids to developmental reading; the construction and use of tests.

All such courses should include systematic observation of good literacy teaching, accompanied by discussions of the reasons for the various methods and procedures used. They should be followed by opportunity for those in training to participate under guidance in teaching activities, until they have acquired the capacity to give a sequence of lessons with reasonable success.

SUPERVISION AND IMPROVEMENT OF TEACHING

But the task of preparing good teachers is only well under way when those in training are ready to start their work as literacy teachers. This is true for two reasons. In the first place, ability to teach well is a matter of continuous improvement over a long period of time, the same as ability to engage effectively in any other complex activity. Experience at various levels of education shows clearly that the rate at which teachers improve can be greatly increased through sympathetic, tactful leadership and guidance. In the second place, the understanding and skills that can be provided through a literacy instructor's course merely provide a point of departure for further growth and development. The need is urgent everywhere for a clearer and broader definition of the objectives of literacy training, for better organization of literacy courses, for the preparation and use of improved instructional materials, and for development of more effective teaching procedures. If rapid progress is to be achieved, dynamic leadership is needed in dealing with the problems and in stimulating creative, co-operative effort among teachers for the improvement of teaching.

There is nothing new about this. The urgent need for the supervision and improvement of literacy teaching has been emphasized repeatedly in reports from many different countries. The responsibility for such duties falls directly or by implication on literacy directors, organizers or other administrative officers. Hitherto, the problems involved in recruiting and providing preliminary training for teachers have required so much time that leaders have had little or no energy for the follow-up steps needed in supervising and improving teaching. If the current effort to develop literate communities, regions, territories, and nations is to succeed in the long run, constructive supervisory leadership must be provided.

A sound supervisory programme includes a series of carefully planned activities designed to broaden the understanding of teachers, improve the quality of their teaching, and thus raise the literacy level of the community. It should begin with an intensive study by the supervisory officer of the successes and failures of the current programme and the sort of help needed by teachers. Through observations of teaching, sympathetic constructive conferences with teachers, and the provision of demonstration lessons, much can be done to help teachers overcome many specific difficulties and acquire a growing understanding of improved methods of teaching. Equally important is to arouse interest in the study of given problems, such as how to write readable materials for class use, where supplementary and library materials can be obtained, and methods of preparing and using informal tests of ability to read and write. Furthermore, committees can be organized to deal with such problems as the methods for promoting readiness for reading and handwriting, overcoming difficulties in word recognition, and stimulating interest in personal reading.

The ultimate goal of such efforts is the creation of a staff keenly interested in teaching problems and working continuously and co-operatively with supervisors in efforts to solve them. It is important to remember that good supervision does not seek to regiment teachers; it seeks rather to stimulate creative effort on their part.

EVALUATION OF THE PROGRAMME

As a literacy programme gets under way, steps should be taken to determine its efficiency. Evaluation, in the sense in which the term is used here, is the process by which leaders determine the effectiveness of a programme and plan the requisite steps to improve it. At one time, decisions were usually made by those responsible largely on the basis of their own judgment. Today, evaluation is a more or less continuous process involving the co-operation of all members of the staff and of the community, and making use of various methods for securing information on which conclusions can be based. A carefully planned evaluation programme has at least five main aspects.

1. It defines the objectives of a literacy programme in terms, first, of the growth and behaviour of those being trained and, secondly, of the improved status of individuals and groups. For example: (a) increased competence of adults to read independently and thoughtfully and to write clearly and legibly; (b) growth of interest in reading as shown by the amount of material read independently by students; (c) the extent of the enthusiasm and effort on the part of students in literacy classes; (d) increasing use of reading and writing in meeting practical situations, such as learning how to make things and ordering goods; (e) wider reading of newspapers and greater use of library material; (f) improved capacity of individuals to make a living, raise better crops, maintain better health, rear children more effectively; (g) increased participation of individuals in the study and solution of community problems making for a purer water supply, better sanitation, improved roads, etc.; (h) the maintenance of reading interests, habits and skills after class instruction ceases.
2. It selects and makes use of techniques for obtaining reliable information concerning the progress towards objectives. For example: (a) observation in the classroom, in the home and in the community; (b) the giving of reading and handwriting tests to measure achievement; (c) personal interviews with students and members of the community; (d) records of newspaper subscriptions, magazine and book sales, and library circulation; (e) concrete evidence of improved individual and group status.
3. It interprets the above data and reaches conclusions concerning the nature and extent of the progress made and the deficiencies which still exist.
4. It makes inferences as to the various factors that cause progress or deficiency.
5. It reaches conclusions concerning desirable changes to be made in the literacy programme to ensure greater success or effectiveness.

As implied by the foregoing comments, evaluation is a continuous process. It extends throughout a given literacy course and continues until the after effects of the training have been ascertained. If effectively carried out, it serves the following purposes:

Provides students with the facts needed to improve their efforts in learning to read and write well.

Supplies teachers with information essential for improving the programme and guiding individual and group activities.

Keeps the administrative and supervisory officers informed of the character and needs of the programme.

Provides the necessary facts for keeping the community informed and enlisting its further support.

NEEDED RESEARCH

In efforts to build sound literacy programmes, local and national agencies face many unsolved problems and controversial issues. As a result, some uncertainty exists as to the best procedure and progress is often blocked. The need is urgent, therefore, for carefully planned studies which seek valid solutions to current problems and a clarification of debatable issues. Fortunately, much progress has been made during recent years through the self-initiated efforts of individuals and the work of public and private research agencies. The field is so broad and the need for research so great however, that constructive effort must be greatly extended. In the discussion that follows attention is directed to some of the outstanding studies which should be undertaken in the immediate future and to agencies that may contribute towards their successful outcome.

LITERACY AND FACTORS THAT INFLUENCE IT

A clearer understanding is necessary of the current state of literacy and the factors which influence it. Within this broad scope, the following specific problems should be studied in detail:

Extent of literacy in the world as a whole, in different areas, and in specific countries. Through an analysis of all available types of data, efforts should be made to trace progress since 1900 and to identify those areas where the greatest need exists. A 1953 report[1] concerning progress in literacy provides a background for further studies in this subject.

Uniform and objective standards for identifying and measuring progress toward literacy. Problems cannot be studied successfully until such standards are available. Fortunately, measures are now being taken which will yield data for comparative purposes. Such findings may lead to proposals for conducting literacy surveys and provide suitable measuring devices.

Factors that influence and retard literacy. Through case studies in different parts of the world the influence of various factors—linguistic, geographic, social, political, economic, cultural, educational, religious—should be determined. Furthermore, the specific ways and conditions under which these factors operate should be ascertained.

The steps taken and the experiences made in different countries in efforts to extend literacy. Detailed studies should be made, for example, of such countries as Turkey, which has made notable progress toward literacy during recent decades, and Belgium, which has attained at least 99 per cent literacy.

Case studies in various cultural domains to determine the levels of competence in reading and handwriting needed for functional literacy, and to set up standards that may be applied to other cultural domains.

The above examples are typical of the many problems that merit careful study. In order to solve them within a reasonable time, the co-operation of local, regional, national and international agencies is essential. The issues are so numerous and complex that a committee of literacy specialists should be appointed to prepare a detailed analysis of the various problems requiring study, to be followed up by concrete suggestions as to effective ways of attacking each in turn.

1. Unesco. *Progress of Literacy in Various Countries*. Unesco, Paris, 1953, 224 p. + graphs. (*Monographs on Fundamental Education*, I.) (A second study to be published by Unesco will bring the data up to the date of the latest census information and increase the geographical coverage given.)

LANGUAGE PROBLEMS

A second group of problems relates to the form and structure of various languages. The need for research in this domain has become so great that national committees have been established in many countries to make intensive studies of specific issues. Some of the problems that deserve to be tackled are set out below.

The development of appropriate orthographies. This is one of the first problems faced in areas which have no written language. To ensure a sound and acceptable orthography, both the linguistic characteristics of the language[1] and pertinent social, political, cultural and religious factors[2] must be studied in detail. The findings of national committees such as the Korean Language Research Society, and of language specialists such as Pike,[3] provide background and guidance for further efforts in developing orthographies.

The development of a common language. Some countries are made up of tribal groups that speak different dialects. For many purposes a common language is needed. This is illustrated in the case of the Philippines which has established an Institute of National Language. It is charged with the responsibility of developing a national language based on Tagalog, the most widely used of the vernaculars.

The simplification or change of the written language. The work involved in learning to read and write some languages is so great that progress toward literacy is greatly retarded. This is true in the case of Chinese. As a result a Committee for the Research on the Chinese Written Language has been appointed which is seeking, first, to simplify the Chinese characters now used, and secondly, to develop a phonetic system for writing the common language. A problem of a somewhat different character is being studied by the Egyptian Academy for the Arabic Language, namely the modernization of that language.

Linguistic analyses of languages. Before literacy materials can be prepared effectively, the chief linguistic characteristics of a language should be identified and described. Many individuals and agencies are now engaged in such studies in different countries. For example, staff members[4] of the Summer Institute of Linguistics of the University of Oklahoma are making linguistic studies of various native dialects in Latin America, preliminary to the preparation of literacy materials.

The development of simplified styles of writing in different languages to facilitate progress in learning to write. The fact was pointed out in Chapter XI that the usual style of handwriting in many countries is very complex and difficult to learn. Some of them, particularly those that use Roman letters, have adopted a script style of writing in teaching both children and adults to write. The most effective style to use in others merits detailed study.

This list of problems could be greatly augmented. To a large extent language problems are too complex and technical in character to be solved by local committees. They should be attacked rather by national committees which include language specialists. If no such committee has been established in a given country, local groups there should do everything possible to secure the appointment of one. If their efforts

1. Wolf, Hans. *Report on a Mission to Nigeria, January 1953 to January 1954.* Unpublished report, Unesco, Paris, 1954.
2. Burns, Donald 'Social and Political Implications of the Choice of an Orthography', *Fundamental and Adult Education,* Vol. VI, April 1953, pp. 80-5.
3. Pike, Kenneth L. *Phonemics: A Technique for Reducing Language to Writing.* University of Michigan publications; *Linguistics,* Vol. III. Ann Arbor, Michigan, University of Michigan Press, 1947, 254 p.
4. Gudschinsky, Sarah. *Handbook of Literacy,* op. cit.

are not successful, the advice of a linguist, or other language specialist, should be sought.

BASIC PROBLEMS IN READING AND HANDWRITING

Wide use has been made throughout this report of the findings of research concerning the basic processes in reading and handwriting and the factors that influence their development. Unfortunately, the studies made thus far have largely used children as subjects and have been restricted to certain countries. While there is strong evidence that the conclusions reached apply to adults and to all areas of the world, additional confirmatory evidence is desirable. Equally important is the need of a clearer understanding of the physical and psychological processes involved in reading and writing. For this purpose, the following types of studies should be undertaken:

The basic processes in reading as revealed through eye-movement studies. The evidence secured from studies of reading in 14 different languages shows that mature readers follow essentially the same general procedure in reading. Similar studies are needed of reading in other languages to determine if these findings apply to them also.

Nature of the demands made on adult readers. An analysis was made in Chapter IV of the steps or processes involved in meeting typical reading demands made upon adults. Similar studies are needed in a large number of local communities and cultural areas to ascertain the various occasions or purposes for reading among functionally literate adults, and the nature of the accompanying attitudes and skills.

Factors that influence progress in adult reading. The results of research made in a few countries were summarized in Chapters IV and VI. Detailed studies are needed in other countries to ascertain more fully the various factors and conditions —personal, social and environmental—that promote and retard progress toward functional literacy.

Essential requisites for learning to read and write with reasonable ease and rapidity. The fact is well known that some adults are much better prepared than others to learn to read and write when they enter literacy classes. Studies are needed of the various factors and of the methods by which individual readiness can be determined.

Relation of ability to recognize words to efficiency in grasping meanings. It is often assumed that as soon as adults are able to recognize the words of a passage they can grasp its meaning. Studies are greatly needed to determine to what extent this is true, and what supplementary ability is necessary for the meaning to be clear.

Because of the nature of some of these problems, the co-operation of research bureaux and departments of psychology and education in universities should be enlisted.

PREPARATION OF LITERACY MATERIALS

The need for more and better literacy materials has been emphasized repeatedly throughout this report. In efforts to supply them, both local and regional agencies should study such problems as the following:

The words which deserve most emphasis in teaching adults to read. Previous studies have shown the very great frequency with which certain words are used in adult reading materials. In English, for example, the 100 most often used words

constitute almost 60 per cent of all the words used in a wide sampling of material; the 1,000 most often used words constitute almost 90 per cent of all the words used. By mastering early the words of widest usage in a language adults make rapid progress in ability to read independently. Word lists have already been prepared in several countries. Any individual or agency which plans to make a vocabulary count should study such references as those listed in the footnotes.[1] In making final decisions, the chief emphasis should be given to the words of greatest frequency in the everyday language of adults, as well as to those used most frequently in current reading materials for adults.

The relative frequency of word elements and of marks indicating variations in sounds of letters, in stress and in tone. The fact was pointed out in Chapter VIII that the detailed characteristics of words that should be learned early are those that occur most frequently in simple reading material. To identify the items that should be emphasized during the primer period, an analysis should be made of the 300-odd words that appear in the primer. Similarly, as and when later books in a literacy series are prepared, an analysis should be made of the new words included.

The things, activities or topics of greatest interest to the adults of a community or region. If the materials used in literacy classes are to arouse keen interest and effort on the part of adults they must relate to items of genuine interest and concern to them. When primer materials are prepared exclusively for local use, the study of adult interests may be restricted to the community concerned. If primers and other materials are to be used over a wide area, studies should be made in a number of representative communities and items selected which are of common interest throughout the region served.

The number of times words should be repeated in literacy materials to ensure instant recognition. The recommendation was made further back that each word should be repeated a minimum of 50 times in the book in which it is introduced. Studies made among children[2] show that the number of repetitions needed to ensure mastery varies from 20 to 55, depending on such factors as the ability of children to learn. Similar studies are needed at the adult level as a guide in preparing literacy materials.

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1. Chaudry, Probadh Chaudra Deb. *Word Frequency in Bengali and its Relation to the Teaching of Reading.* Decca University, Bulletin No. XIV. The University of Decca, Rainna, Decca, India, 1931, 62 p. + vocabulary lists.
   Dottrens, Robert and Massarenti, Dino. *Vocabulaire fondamental du français.* Neuchâtel et Paris, Delachaux and Niestlé [1947], 68 p. *(Cahiers de psychologie et de pédagogie expérimentale.)*
   Eaton, Helen S. *Semantic Frequency List for English, French, German and Spanish: A correlation of the first 6,000 words in four single-language frequency lists.* Issued by the Committee on Modern Foreign Languages of the American Council on Education, University of Chicago Press, 1940, 441 p.
   France. Centre d'études du français élémentaire. *Le français élémentaire.* Paris, Centre National de Documentation Pédagogique [1954], 67 p.
   García Hoz, Víctor. *Vocabulario usual, común y fundamental: determinación y análisis de sus factores.* Madrid, Consejo Superior de Investigaciones Científicas Instituto San José De Calazans, 1953, 520 p.
   Graded Word List for the Preparation of Reading Materials for Adult Education in the Foundation Fields. WPA Technical Series. Works Progress Administration, Division of Professional and Service Projects. Education and Training Section, Washington, D.C. 1939. (*Education Circular* No. 10, supplement No. 1.)
   Rodríguez Bou, Ismael. *Recuento de vocabulario español.* Río Piedras, Universidad de Puerto Rico, 1952, 668 p. (*Trabajos de Investigación Auspiciados por el Consejo Superior de Enseñanza*, Vol. 1.)
   Thorndike, Edward L. and Lorge, Irving. *The Teachers' Word Book of 30,000 Words.* New York City, Bureau of Publications, Teachers' College, Columbia University, 1944, 274 p.
2. Gates, Arthur I. *Interest and Ability in Reading.* New York. The Macmillan Company, 1930, p. 35.

The kinds of pictures which prove most effective in adult literacy materials. This problem has been studied objectively at the adult level only to a very limited extent. It has already been suggested that the pictures used should be of distinct value in providing a concrete setting for the passages to be read and in promoting word recognition and a clear grasp of meaning. In this connexion, there is wide difference of opinion concerning the value of coloured pictures. Comparative studies are needed of the reaction of groups of adults to coloured and to black and white pictures and the influence of each type on progress in learning to read.

The five problems listed above are typical of the numerous difficulties in preparing literacy materials for adults. Unfortunately, only a few individuals and agencies have devoted themselves to detailed studies of them. It is recommended that national agencies be established in various countries to undertake such studies. The co-operation of authors, publishers and research bureaux should be secured. As a first attack on the problem, all individuals and agencies concerned should meet for the purpose of deciding on the various problems that should be studied, outlining possible methods of studying them, and recommending the individuals or agencies best qualified to act in the matter.

METHODS OF TEACHING

No less urgent and challenging is the need for research into methods of teaching adults to read and write.

Comparative efficiency of different methods of teaching beginning reading among adults. The evidence presented in Chapter VI showed that analytical and synthetic methods of teaching reading cultivate different sets of attitudes and skills. The results of research indicated that emphasis on both meaning and independence in word recognition are essential from the beginning. Further studies, particularly at the adult level, are needed to confirm these findings or establish the validity of different procedures.

Methods of promoting independence in word recognition in different languages. The fact was pointed out in Chapter II that the skills involved in recognizing words vary to a considerable extent among languages. As a result, studies are needed, particularly in countries where literacy programmes are just being introduced, to identify the various aids to word recognition and the methods by which the necessary ability can be developed most quickly and effectively.

Methods of helping adults who meet with unusual difficulties in learning to read. Many adults find difficulty in reading due to such drawbacks as poor vision, lack of background, immature language habits, limited capacity to learn, emotional disturbances. There is urgent need for intensive studies of such cases and the development of therapeutic or special teaching techniques which can be used by literacy teachers in dealing with them.

Methods of stimulating interest in reading on the part of adults and of establishing the habit of reading regularly for pleasure and information. Unless such interests and habits can be established, the final results of efforts to promote literacy will be very limited. Both local and regional committees should make careful studies to determine the kinds of reading material that will prove most interesting and useful, the procedures and agencies for making such materials available, and the methods of stimulating and promoting interest in reading among specific groups.

Methods of ensuring the quickest and most effective transition from the models of handwriting presented by teachers to clear legible writing on the part of adults.

Very few studies of this problem have thus far been reported. Teachers who are keenly interested in the problems of teaching adults to write should be encouraged to make detailed studies of the efficiency of the various methods they use and to devise more effective ones, if possible.

The proposals made on this and preceding pages suggest the extent of the research needed in the field of adult literacy. Rapid progress in achieving the goal sought depends in large measure on finding valid answers to these problems.

CONCLUDING STATEMENT

The attainment of world literacy is a tremendous task. To achieve it within a reasonable period, and the consequent improvement in human welfare and contribution to world understanding and peace, will require the use of far more human and material resources than have been available in the past. This calls for the co-operation of a larger number of competent leaders, more and better trained field workers, broader and sounder literacy programmes, improved instructional materials, more effective methods of teaching, a richer supply of simple, readable supplementary and library books, added financial support.

If current resources are to be thus extended, wide publicity will be needed in every part of the world concerning the goal in view and the means of attaining it. The public in general, and government officials in particular, must arrive at a picture of conditions and needs that is so clear and convincing that they will support wholeheartedly and generously the devoted efforts of leaders and field workers to extend literacy. If this report aids in developing greater awareness of current conditions, in securing such co-operation and support, and in providing a starting point for further constructive effort, it will have served its chief purpose.

INDEX

ACER Reading Tests, 184
Abad, Gonzalo, 185.
Abadie Soriano, Roberto, 76, 113, 120.
Achievement Tests in Silent Reading, 184.
Activity methods, 17, 105-6.
Africa, 174, 266.
African languages, 40, 81.
Agazzi, Aldo, 212.
Adult Reading Test, 187.
Agorrilla, Amado L., 149, 151, 154.
Ahrens, 44.
Ai, J. W., 51.
Aldine method, 107.
Alfonso, Ignacio Ma., 186.
Allen, Lois W., 185.
Allen, Richard D., 185.
Alphabetic method, 75, 77-8.
America, Latin, 166, 266, 270.
America, South, 160.
American Council on Education, 185.
Analytic method, 75, 76, 82-7, 88, 273.
Analytic-synthetic method, 76, 81, 88, 113.
Anderson, Gladys Lowe, 186.
Anderson, Irving, H., 78, 79, 85, 86.
Arabic, 41, 53, 56, 59, Plate VII, 135, 168, 270.
Arbuthnot, May Hill, see Plate IX.
Argentina, 52.
Artley, A. Sterl, 11, see Plate IX.
Association Phonétique Internationale, 101-2.
Atomo, Shigeru, 52.
Audio-visual aids in literacy, 18, 70, 166, 261.
  films, 18, 89, 115.
  filmstrips, 89, 115, 161, 166, 261.
Auditory method, 75.
Australia, 29.
Australian Council for Educational Research, 123, 184, 185, 223.
Aymara, 166.
Ayres, Leonard, P., 201.

Ballard's One Minute Reading Test, 102.
Barème de Vaney, 184.
Barrera Vásquez, Alfredo, 41.
Basal readers, 264.
Basurto García, Alfredo, 83, 128, 160.
Batchelder, Mildred I., 104.
Beatty, Willard W., 123.
Belani, Victor M. A., 185.
Belgium, 14, 92.
Bengali, 150, 234.
Benzies, D., 119.
Betzner, Jean, 104.
Birmingham University, Institute of Education, 140.
Bivar, H. G. S., 149, 150, 188, 189, 230, 234.
Bloomfield, Leonard, 39, 41, 42.
Bodmer, Frederick, 36, 42.
Bond, Horace, 23.
Bonnis, L., 203.
Borel-Maisonny, S., 141, 203, 225.
Brazil, 14, 72, 88, 118, 123, 150.
  Ministero de Educação e Saude, 150.
Burmese, 53, 56, 58.
Burns, Donald, 270.
Buros, Oscar Krisen, 25, 26, 27, 184-6.
Burt, Sir Cyril, 175, 184.
Buswell, Guy Thomas, 46, 47, 107, 108, 110, 149, 176.

California Reading Tests, 184.
California Tests of Mental Maturity, 125.
California Test Bureau, 184.
Callewaert, H., 188.
Campanha de Educação de Adultos, Brazil, 97.
Carbo, Edmundo, 185.
Carpenter, A. J., 230, 239.
Carr, H. A., 50, 51.
Cass, Angelica W., 17, 239.
Chai-hsùan, Chuang, 35.
Chang, Chung-Yuan, 51.
Chart Making Committee of the Madison Public Schools, 131.
Chassagny, Claude, 141.

Chatterji, U. N., 150.
Chen, L. K., 50, 51.
Chaudry, Probadh Chaudra Deb, 272.
Chenault, Price, 154, 176.
Cherokee Indian, 31, 36.
Chicago Reading Tests, 146.
Chile, 213.
Dirección General de Educación Primaria, 99.
Ministerio de Educación, 167, 180.
China, 34-6, 113, 189, 216, 217.
Chinese, 3, 32-6, 37, 38, 43, 50-1, 53, 57, 65, 66, 83, 168, 270.
Chou, Siegen K., 5.
Christian Education Council, London, 14.
Chu Ching-nung, 33.
Chueh, Wie, 35, 189, 217.
Clark, Ann Nolan, 19.
Clemente, Tito, 214.
Columbia University, Teachers' College, 184, 186, 187.
Comenius, Jan Amos, 84.
Committee for the Research on the Reform of the Chinese Written Language, 35.
Committee of the Division of Instructional Research, New York City, 131-2.
Conference of Provincial Representatives, Zaria, Nigeria (1950), 21, 228, 237, 249, 251, 266.
Conference on Reading, University of Chicago, 140.
Cowan, George W., 81.
Cruz González, Adrián, 119, 128, 210, 212.
Cuba, 14.
Currier, Lillian Beatrice, 108.

Dal Piaz, Riccardo, 189, 222.
Dale, Edgar, 18.
Dale Phonic Method, 102, 103.
Davis, Lourse Farwell, 116.
De Francis, John Francis, 32, 33, 35.
Dearborn, Walter Fenno, 45, 78, 79, 85, 86.
Decroly, O., 65, 83, 84, 190.
Deny, E. C., 185.
Department of Mass Education, Indonesia, 149.
Detroit First-grade Intelligence Test, 103.
Diack, Hunter, 84.
Diagnostic Reading Tests, 184.
Dickson, Julia E., 105.
Dionysius of Halicarnassus, 39.
Diringer, David, 31, 32, 37, 39, 42.
Dodge, Raymond, 44.
Dolch, Edward William, 140.
Donnay, Jacques, 119.
Dottrens, Robert, 76, 83, 92, 120, 132, 188, 190, 192, 193, 194, 197, 198, 223, 235, 272.
Douet, Kathleen, 219.
Duguid, Olive, C., 108.
Dumville, Benjamin, 101.
Duncan, John, 25, 140, 175, 187.
Dunville, Benjamin, 79.
Durell-Sullivan Reading Capacity and Achievement Tests, 184.
Dutch, 92.

East Asia People's Publishing Society, Shanghai, 34.
Eaton, Helen S., 272.
Eclectic method, 87-8.
Educational Records Bureau, New York, 105.
Egorov, T. G., 128.
Eigenmann, Karl, 223.
Elementary Reading: Every Pupil Test, 184.
Elliot, A. V. P., 11, 120, 215.
Engelbret-Pedersen, P., 223.
England, 14, 224.
English, 40, 41, 45-50, 53, 56, 58, 59, see Plate IX, 271.
Erdmann, Benno, 44.
Ernest, Newland T., 223.
Eskimo, 41.
Essert, Paul L., 17.
Evers, F., 92.
Examen de Lectura de Haggerty, 184.
Experience charts, 106, 130, 131, 134, 161-3.
Eye-movements, 43-60, 85, 223.

Fernald, Grace M., 83, 114.
Fernández Huerta, José, 188, 191, 199, 201, 202.
Ferré, André, 184, 186.
Flores, Gerardo, 26.
Footer, B. F., 190.
Fountain pens, 200.
France, 14, 43-5, 190, 203.
Centre d'Études du Français Élémentaire, 272.
Freeman, Frank N., 188, 190, 191, 195, 196, 198, 201, 202, 207, 210, 223, 224.
Freinet, C., 11, 92, 114, 128, 188, 190, 193, 212.
French, 40, 41, 46, 47, 53, 56, 58, see Plate VIII, 107.

Gabrielli, Giorgio, 212.
Gadgil, D. R., 248.
Gagg, J. C., 84.
García Hoz, Víctor, 272.
Gates, Arthur I., 104, 184, 272.
Gates, Janet B., 82, 83.
Gates Primary Reading Tests, 184.
Gates Reading Tests, 184.
Gelb, Ignace J., 31, 37, 41, 42.
German, 46, 47, 59.

Germany, 43-5, 190, 212.
Gestalt theory, 85, 109.
Ghioldi, Alfredo M., 185.
Gill, Edmund J., 103.
Gilliland, A. R., 49.
Global method, 75, 82, 85, 92, 107, 109-10, 111, 113, 194, 235.
Goforth, Lillian, 116.
Gold Coast, 27.
Gold Coast. Department of Social Welfare, 251.
Goldberg, Samuel, 26, 154, 166, 176.
Goldscheider, A., 44.
Goms, Jean Turner, 65.
González Arias, Mercedes, 186.
Graded Word List, 184.
Gray, Clarence Truman, 46, 202, 208.
Gray, William S., 6, 14, 27, 49, 61, 64, 66, 67, 79, see Plate IX, 107, 122, 139, 168, 237.
Great Britain. Ministry of Education, 25, 29, 187.
Grieve, D. W., 12.
Griffin, Ella. Washington, 22, 149, 153, 154, 165, 259, 265.
Griffiths, Nellie L., 185.
Group Test of Reading Readiness: Dominion Tests, 184.
Gudschinsky, Sarah, 81, 113, 120, 128, 132, 135, 149, 151, 153, 158, 159, 165, 166, 214, 217, 218, 237, 259, 262, 270.
Gurrey, P., 11, 120, 215.
Gutiérrez, José M., 185, 186.
Guyton, Mary L., 149, 230, 262.

Haefner, Ralph, 115.
Haiti, 17.
Halconruy, René, 184, 185.
Hallgren, Bertil, 141.
Hamaïde, Amélie, 120, 132, 189.
Hamilton, Francis Marion, 64.
Handwriting, as an aid in teaching, 114-15.
cursive, 190, 221-3, 233.
manuscript, see Handwriting, script.
materials, 217-18, 236-7; ball-pointed pens, 200; blackboards, 237.
preliminary training, 192-3, 230-2.
print-script, *see* Handwriting, script.
programmes, 210-15, 218-19, 230-44.
scales, 201-8, 224.
script, 190, 194-6, 215-16, 222-3, 233.
slanted, 199.
styles of, 188-90, 191, 197-9, 215-17, 233-4.
teaching of, 188-208; to adults, 228-44; to children, 209-25; to left-handed children, 200-1.
vertical, 199.
Harris, Albert J., 141.
Hawaii, 39.
Hebrew, 53, 56, 59.
Heese, J. de V., 194, 195.
Hendrix, Charles, 120.
Hernández Ruiz, Santiago, 40.
Hildreth, Gertrude, 73, 114, 128, 136, 185.
Hindi, 53, 56.
Holding, Mary, 160.
Holmes, Eleanor, M., 67.
Horn, Ernest, 73, 185.
Hu, I., 51, 53.
Huey, Edmund Burke, 45, 48, 65, 68, 78, 79.
Hylla, Erich, 185.

Ideo-visual method, 75, 113.
Ideographs, 31.
Illiteracy, extent of, 27-30.
India, 22, 79, 150, 160, 189, 213, 217, 248, 262, 286.
Individual Reading Test, 185.
Indo-European languages, 41.
Indonesia, 39, 174, 250, 265, 266.
Djawatan Pendidikan Masjarakat, 250, 265.
Inserhamp, Karlheniz, 185.
Institut International de Coopération Intellectuelle, 39.
Instituto de Alfabetización en lenguas indígenas, Mexico, 95.
Instituto Pedagógico Nacional, Caracas, 186.
The Inter-America Tests, 185.
Inter-American Seminar on Literacy and Adult Education, Petropolis, Río de Janeiro (1949), 30, 263.
International Bureau of Education, 14, 87.
International Conference on Public Education
XIth, 189, 191-2, 197, 200 213, 217, 221.
XIIth, 76, 88, 120.
Iowa Silent Reading Test, 111.
Isidro, Antonio, 12, 228, 265.
Israel, 164.
Italian, 94.
Italy, 212.

Jacobet, 84.
Jaggar, J. Hubert, 85.
Jamaica, 229.
Jamaica Social Welfare Commission, 229.
Janušević, M. J., 120.
Japan, 29, 36, 113, 189, 217.
Japanese, 31, 37-8, 43, 51-2, 53, 57, 65, 81, 83, 168.
Jardine, Alexandre, 115.
Jauffret, Edouard, see Plate VIII.
Javal, Emile, 44.
Jiménez Hernández, Adolfo, 120, 128.
Jowitt, Harold, 213.

Judd, Charles Hubbard, 46, 77.

Kana, 37, 65.
Keller, Helen, 83.
Kelley, Truman L., 185.
Kennedy School of Missions, Hartford, Connecticut (U.S.A.), 266.
Kenya, 160.
Key-word method, 79, 80.
Khartoum Publications Bureau, *see* Plate VII, 239.
Kinaesthetic method, 75, 83, 84, 114-15.
King, Ida Lee, 236.
Korean, 40, 53, 57, 58.
Korean Language Research Society, 270.
Kotinsky, Ruth, 21, 149.
Kottmeyer, William, 141.
Kuitert, R., 92.
Kunze, Dietrich, 185.
Kurasawa, Eikichi, 37.

Lacombe, Mabel J., 120.
Lamare, Dr., 44.
Lambert, C. M., 185.
Lämmel, Arnold, 189, 198, 223.
Lamport, Harold Boyne, 76.
Landolt, Edmond, 44.
Language problems, 270-71.
Languages, types of, 31-42.
Latin, 41.
Laubach, Frank C., 21, 39, 72, 80, 87, 96, 98, 149, 160, 262, 266.
Learner-centred method, 87, 89-93.
Leary, Bernice E., 27.
Lee, J. Murray, 105.
Lee-Clark Reading Test, 105.
Lee-Clark Reading Readiness Test, 125.
Leistungemessung HI 19, 185.
Leistungemessung HK 20, 185.
Letter-sound characters, 31, 39-42, 76.
Lewis, R. B., 175.
Literacy, certificates, 178.
  charts, 160, 166.
  functional, 21-7, 61-74, 149, 151.
  level of, 13, 19-20.
  materials, *see* Reading materials.
  need for, 18-19.
  programmes, 11, 145-56; evaluation of, 268-9.
  purposes of, 19, 120-1, 151-2.
  standards of, 20-21.
  training, 31-42.
Little, Kenneth L., 21.
Logographs, 31.
Look-and-say method, *see* See-and-say method.
Lorge, Irving, 186.
Lourenço-Filho, M. B., 17, 72, 123, 186.

Luke, Edith, 85.

McCracken, Glenn, 115.
McDowell, Rev. John B., 111.
McLaren, Violet, 107.
McLean, Mary E., 105.
Madagascar, 80
Madison Public Schools. Handwriting Committee, 219.
Malagasy, 80.
Malay Peninsula, 39.
Mandarin (Chinese), 36.
Mann, Horace, 84.
Margairaz, Emilie, 76, 83, 92, see also Plate X, 120, 132, 194.
Marinho, Heloisa, 120.
Melanesia, 164.
Mendoza, Saül M., 184, 186.
Menzel, Emil W., 78, 79.
Meriam, J. L., 104.
Metropolitan Achievement Tests: Reading, 185.
Metropolitan Reading Readiness Test, 125, 145, 185.
Metropolitan Reading Test, 111.
Mexico, 17, 160.
Mezeix, P., 120, 132.
Miles, W. R., 50.
Mitchell, Eva Cornelia, 230, 236.
Moers, Martha, 212.
Monroe, Marion, 128.
Monroe, Walter S., 65, 72, 123, 124, 189, 192, 196, 199, 202.
Monroe Reading Aptitude Tests, 125.
Monserrate, Josefita, 110.
Montessori, Maria, 191, 202, 211, 213, 235.
Morphett, Mabel Vogel, 196.
Morris, Elizabeth C., 149, 230, 262.
Moya, Bolivar, 119, 128, 210, 212.
Müller, R. F., 44.
Muñoz, J. M., 52.
Murphy, Marion McCown, 230, 236.

National Educational Association. Research Division, 194.
National Seminar on the Organization and Techniques for the Liquidation of Illiteracy, Jabalpur (1950), 22.
National Society for the Study of Education, 61, 120, 128, 132, 135, 138.
Navaho, 53, 57, 58.
Navaho Indians, 123.
Neijs, D. K. 79, 164, 233, 259.
Nelson, M. J., 185.
The Nelson Denny Reading Tests, 185.
New Basic Reading Test, 147.
New Guinea, 64.
New Stanford Reading Test, 185.

New Zealand, 29, 39, 118-19.
Council for Educational Research, 185.
Educational Institute, 118.
Nida, Eugene, 168.
Nigeria, 249, 251, 266.
Normal words method, 83, 160.
Northern Nigeria, 21.
Notebaart, J. C., 259.

Odoriz, J. B., 52.
Opportunistic method, 104.
Oral Word Reading Test, 185.
Otis, Arthur S., 61.
Owens, Albert A., 236.

Padlina, Rosa, 186.
Pagani, Lorensi, 94.
Pan American Union, 174.
Pedroso, María Luisa, 185.
Pei, Mario A., 3.
Pestalozzi, 193.
Peyton, Edith M., 103-4.
Pfizenmayer, Otto, 223.
Philippine Association of School Superintendents, 30.
Philippines, 23, 26, 39, 151, 195, 228, 229, 270.
Department of Education. Bureau of Public Schools, 194, 195, 219.
Phonemes, 31.
Phonetic method, 40, 90, 103, 111, 113.
Phonic method, 75, 77, 78-81, 101-4, 108-9.
Phrase method, 84-5.
Pierce, R. P., 116.
Pike, Kenneth L., 168, 270.
Piutner, Rudolf, 49.
Platten, O. T., 12.
Polkinghorne, Adar., 195.
Polley, Mary E., 120, 132, 135, 138.
Polynesia, 39.
Porras, Esther, 186.
Porter, James P., 103-4.
Portuguese, 40, 81, 97, 132.
Pourtois, M. C., 132.
Pressey Primary Classification Test, 103.
Preston, Ralph C., 42, 139.
Printing, use of, 92, 115, 132.
Project for Literacy Education, U.S., 179, 181-2.
Prueba de lectura silenciosa, 185.
Pruebas de Instrucción ACV, 185.
Prussia, 198.
Psycho-phonemic method, 82.
Psycho-phonetic method, 80.
Puerto Rico, 14, 110-11, 150, 161, 229, 234, 253, 254-5.
Consejo Superior de Enseñanza, 90, 100, 149, 150, 153, 158, 161, 229, 230, 231, 234, 253, 262.
Division of Community Education, 253, 254.
Pyle, William, 70.

Quant, Leslie, 223.
Quick method, 34.
Quinn, Helen J., 116.

Read, Helen Sue, 184.
Read, Margaret, 150.
Reader's Digest Educational Service, Inc., 177, 183.
Reading
activities, 62-4.
attitudes and skills, 64-71.
comprehension, 55-6, 67-70, 171-2.
habits, 139-41, 142-4.
materials, 89-93, 130-5, 141-2, 160-6, 174, 176-7, 257-61, 263-5, 271-3.
methods of teaching, 75-100, 273-4; choice of, 101-16.
oral, 48-9, 55-6, 139, 172.
process in various languages, 43-60.
programmes: for adults, 150-78; for children, 117-48.
readiness, 122-9, 153-8.
silent, 47-50, 55-8.
Rebsamen, Heinrich, 160.
Rémy, Mlle, 186.
Rex, Frederick J., 18.
Richardson, Marion, 219.
Roberts, D. B., 149, 247, 249.
Robinson, Helen M., 140, 141.
Rodríguez Bou, Ismael, 5, 90, 91, 165, 259, 272.
Roe, Frances, 129, 135.
Rolver, Johannes, 223.
Romance languages, 41.
Rosenfeld, Jeannette B., 239.
Rother, Ilse, 120.
Round Table on Fundamental Education Materials for Adults, Washington, D.C. (1953), 264.
Ruch, Giles M., 185.
Rudolfer, Noemi da Silveira, 24.
Ruopp, Phillips, 21.
Russell, David E., 138.

Saez, Antonia, 138.
Sapir, Edward, 31, 42.
Schmidt, William Auton, 45.
Schonell, Fred J., 79, 85-6, 120, 123, 126, 129, 132, 135, 138, 140, 141, 175, 184.
Schonell, F. Eleanor, 184.
Scotland, 14, 123, 124, 224.
Scott, R. E., 116.
Scottish Council for Educational Research, 123, 124, 184.
Seagoe, May V., 184.

Seara Pazos, Rosa, 186.
Secretaria Geral de Educaçāo e Cultura, Rio de Janeiro, 120.
See-and-say method, 83, 101-2.
Seeger, Margaret, 105.
Seegers, J. C., 106, 107.
Seegers, J. E., 83, 107, 109.
Semitic languages, 41.
Sentence method, 34, 40, 75, 85-6, 103, 112.
Seven Plus Assessment: Northumberland Series, 185.
Sharlip, William, 236.
Shen, Eugene, 50.
Silent Reading Comprehension: Iowa Every-Pupil Tests of Basic Skills, 185.
Silveira, Juracy, 120, 230.
Simon, Jean, 5, 186.
Simon, Dr. Th., 65, 76, 109, 184.
Smith, Hartley A., 236.
South Africa, 22, 195, 228.
South Pacific, 164, 249.
South Pacific Commission, 249.
  Literature Bureau, 249.
Spanish, 40, 41, 43, 52-3, 56, 66, 81, 90, 95, 98, 99, 100, 132, 151, 167, 174.
Spitzer, H. F., 185.
Sprechspur method, 212.
Stanford Achievement Test Reading, 185.
Stanford Binet Test of Intelligence, 125.
Stevens Reading Readiness Test, 125.
Stolee, Peter B., 80, 259.
Story method, 40, 86-7, 107-9.
Sudan, 150, 239.
Summer Institute of Linguistics, 81, 270.
Sutton, Rachel S., 115.
Swahili, 96.
Swan, Agnes, 219.
Sweden. Kungl. Skolöverstyrelsen, 217.
Switzerland, 14, 92, 212-13.
Syllabic method, 77, 81-2, 90, 98, 112.
Syllabic-sound characters, 31, 36-8, 76.
Synthetic method, 75, 76, 87, 109, 189, 190, 194, 214, 273.
Systematic method, 104-5.

Takamine, H., 52.
Tavazza, J., 52.
Taylor, A., 12.
Teachers, 265-8.
Teachers' guides, 262.
Tejada N., Carmela, 30.
Terman, Lewis M., 185.
Test Boliviano de lectura silenciosa, 185.
Test de Graduación: Baterías II & III, 185-6.
Test de lectura de palabras, 186.
Test de lectura en silencio Tipo A, 186.
Test de lectura Gates-Gutièrrez, 186.
Test de lectura para la enseñanza primaria y secundaria-Forma A, 186.
Test de lectura segura, 186.
Test de lectura silenciosa M H, 186.
Test de lectura silenciosa Tipos B, C, & D, 186.
Test de lecture, 186.
Test de lecture silencieuse, 186.
Test individuel, 186.
Test métrico de lectura silenciosa, 186.
Testes ABC para verificacão de maturidade necessaria a aprendizagem de leitura e escrita, 186.
Tests
  arithmetic, 26.
  literacy, 25-6, 29.
  mental, 72, 125, 156.
  reading, 53-6, 102-5, 107-9, 111-12, 135-6, 140, 146-8, 169-72, 176, 181-3, 184-7.
  reading readiness, 72, 123, 125-6, 145, 184-6.
Tests d'instruction Rémy-Simon, 186.
Thai, 53, 56.
Thailand, 22, 39, 88, 189.
Thompson, George T., 224.
Thorndike, Edward L., 68, 186, 201, 272.
Thorndike-Lorge Reading Test, 186.
Thorndike Word List, 54.
Thought method, 103.
Tinker, M. A., 65.
Tirado Benedí, Domingo, 40.
Townsend, Agatha, 106.
Townsend, Elaine Mielke, 166, 259.
Tracing method, 84.
Traxler, Arthur E., 105, 106.
Typewriting, use of, 115.

Unesco, 5, 6, 9, 10, 252, 269.
  Group Training Scheme for Fundamental Education, 149, 150, 155, 156, 166, 230, 262.
U.S.S.R., 29.
Unión Nacional de Periodistas, Quito (Ecuador), 98.
UN General Assembly, 10.
United States, 26, 27, 36, 43, 174.
  Armed Forces Institute, 234.
  Census Bureau, 29.
Universidad de la Habana, Cuba, 112.
University of Chicago. Department of Education, 6, 53.
University of London Institute of Education. Community Development Clearing House, 14.
University of Michigan. Survey Research Centre, 253.
University of Toronto, 184, 185.
Urdu, 53, 56.
Uruguay, 113.

Valencia. Escuela Especial de Orientación y Aprovechamiento del Excmo. Ayuntamiento, 201, 205-6.
Valentine, C. W., 102, 103.
Vaney, V., 110, 184.
Velasco, Ermel, 185.
Velde, I. van der, 92.
Vermculen, A., 129.
Vernon, M. D., 65, 123.
Vernon, Philip E., 184.
Verry, H. R., 6.
Visual aids in literacy, *see* Audio-visual aids.
Visual method, 75.
Vogel, Karl, 160.
Voorhis, Thelma G., 194.

Walcher, Sister Mary Romana, 193.
Wall, W. D., 140, 153, 154, 175, 176.
Wallace, Viola, 178.
Wallis, Ethel E., 41, 82, 83, 259.
Wang, Fung Chiai, 32, 51.
Ward method, 107.
Washburne, Carlston, 196.
Waterman, John I., 59.
Watts-Vernon Silent Reading Test, 187.
Webster, Noah, 77.
Wenz, Gustav. 223.
West Africa, 23.
Whipple, Caroline A., 149, 158, 230, 262.
Whitehead, Frank, 84.
Winch, W. H. 102.
Wisconsin. Department of Education, 195, 216, 226, 227.
Witty, Paul, 149, 161, 166.
Wolf, Hans, 270.
Woodworth, Robert S., 65.
Word-cards, 84, 165, 261.
Word-concept characters, 31, 32-6, 76, 83, 138.
Word games, 166.
Word Lotto, 166.
Word method, 40, 75, 83-4, 107-8, 112.
Word perception, *see* Word recognition.
Word recognition, 44-5, 65-7, 138-9, 167-8, 171.
Word-books, 84, 116, 179, 236, 261.
Works Progress Administration, Washington, D.C., 272.
Wright, G. G. Neill, 189, 200.
Wrightstone, J. Wayne, 105, 106.
Writing, *see* Handwriting.

Yamamoto, Sango, 52.
Yee, Chiang, 189.
Yoruba, 53, 57.
Yusif, Hassan Ahmed, 150.

Zarrilli, Humberto, 76, 113, 120.

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UNESCO'S PUBLICATIONS IN EDUCATION

Unesco's publications in the field of education are planned primarily to throw light on the educational tasks assigned to the Organization by the collective decision of its 74 Member States. These tasks include attacks on specific problems which by their universality and urgency are most effectively treated by various forms of international action: advisory missions, technical assistance, the pooling of expert knowledge or the calling of regional or international conferences.

How can one get all the world's children into school? What are the best methods of teaching reading and writing to illiterate adults, as well as to small children? Should children always be taught in their mother tongue, even if this is a local dialect, or should the medium of instruction be a language of wider currency? What subjects should be included in the curriculum and how should they be taught? What can be done by the schools to improve international understanding? Or to ensure that the pupils become mature, well-balanced adults? What sort of education can be devised to raise the standards of living in underdeveloped territories? For each of these problems and many others, Unesco has produced books which make some contribution to their solution, by recording achievements, analysing difficulties, publishing the recommendations of expert consultants or conferences.

Unesco's tasks also include the locating of the best sources of information on all aspects of education in all countries, and the making available in comparative form of descriptive and statistical data on educational practices around the world. Underlying Unesco's activities is the assumption that all educational systems, institutions and methods are perfectible, and that one of the best means of improving one's own educational system is to study the experiences and achievements of others.

Let us take a few examples of how the Organization's publications in education subserve its activities. The heart of any educational system is its effective provision of compulsory schooling. Unesco's series of *Studies on Compulsory Education* shows the present position in some 15 different countries and three major regions at all stages of educational development. The series includes two general studies on *Raising the School-Leaving Age*, by I. L. Kandel, and *Compulsory Education and its Prolongation*.

Perhaps the greatest single obstacle to the implementation of compulsory education is the inadequate supply of teachers, a problem which is aggravated by the inadequacy or lack of teacher-training establishments. Unesco has published two companion volumes: *The Education of Teachers in England, France and the U.S.A.*, and *The Training of Rural School Teachers*, a study of present practices in Brazil, Gold Coast, India and Mexico. Here again, editorial policy has been to provide information on the experiences and achievements of a selected number of representative countries. In conjunction with the International Bureau of Education

(Geneva), Unesco has also published the results of inquiries on Primary Teacher Training and Secondary Teacher Training in some 60 countries.

The content of educational programmes has been another field for Unesco study and publication. *The Teaching of Reading and Writing*, *The Teaching of Modern Languages*, *Suggestions on the Teaching of History*, *a Handbook of Suggestions on the Teaching of Geography*, *Suggestions for Science Teachers*, *Music in Education*, *Education and Art*, and other works devoted to problems of curricula and method again embody the findings of conferences, meetings of consultants, international surveys and similar endeavours to profit by the best knowledge and experience available.

Out-of-school education is almost as important as in-school education in a world where half the inhabitants are illiterate adults, living only just above subsistence level. For these people, Unesco has developed the techniques of its Fundamental Education programme and published a considerable number of what might well be termed 'manuals' for workers in this new field. These include comprehensive descriptions of successful schemes to promote social welfare through education techniques, such as *Social Welfare in Jamaica*, by Roger Marier, *Co-operatives and Fundamental Education* by Maurice Colombain. Other publications try to help field workers by showing them, for example, how to manufacture, maintain, and utilize, all kinds of simple but essential teaching aids: *How to Print Posters*, by Jerome Oberwager; *Some Methods of Printing and Reproduction* in which the author, H. R. Verry, has selected methods according to the criteria of facility and inexpensiveness; *The Healthy Village*, in which Norman McLaren and his colleagues report on a successful experiment in making simple audio-visual aids, which could be used in health teaching with a partly illiterate rural population. Current developments in fundamental education are recorded in the quarterly bulletin, *Fundamental and Adult Education.*

Adult education, as used in the title above, refers particularly to the out-of-school education of adults who have already enjoyed some measure of formal education, and who live in technically advanced countries. Two volumes illustrating entirely different facets of Unesco's activity in this field are *Universities in Adult Education* by S. G. Raybould (U.K.), E. A. Corbett (Canada) and Baldwin M. Woods and Helen V. Hammarberg U.S.A.); and *The Education of Women for Citizenship*, by Marjorie Tait.

Finally, Unesco's function as an international clearing house for information on educational practices is supported by the publication of various reference works. The most important of these is the triennial *World Survey of Education*, a handbook of educational organization and statistics. The most recent issue surveys the educational systems of some 200 countries and territories, backing up the descriptive chapters with statistics, diagrams of the school systems, a glossary of educational terms and bibliographies. Other reference works include the *International Directory of Adult Education*, *The Progress of Literacy in Various Countries*, and the bibliographical journal, *Education Abstracts*, which, taking each month a separate topic, endeavours to provide a comprehensive annotated bibliography of current literature on that particular subject.

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